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THE NORTH DAKOTA FARMER

Vol. 13, No. 11 LISBON N. D., MAY 15, 1912 50 Cents a Year

WHY THE LARGE FARM?

By J. H. WORST

Why the large farm? Manifestly, for the purpose of large production; that is, the production of many bushels of the different kinds of grain. Too often, however, the extensive farmer is disappointed in this, that in farming so many acres the cultivation given the soil is not the best and instead of a bumper crop, a very light yield per acre is harvested. This is more especially true when the season is not entirely favorable. Occasionally a total failure occurs. Taking the light yields and the failures that result from indifferent cultivation into account, the occasional good crops do not bring the average annual profits up to anything near what the labor and investment should warrant. There is, therefore, too little insurance against adverse conditions, in extensive farming. Moreover, the element of chance enters quite largely where the crop has to contend against adverse weather conditions.

On the other hand, with good soil, worked up into a perfect seed bed, and with seed of strong germinating qualities, the crop will be able to overcome considerable in the way of plant disease or adverse weather conditions. The extra work required to produce a good seed bed and the selection of seed grain of excellent quality constitutes the best sort of insurance against drought, insect or fungous enemies, just as healthy well-fed animals are more resistent of ordinary animal disorders than those that are not well sheltered and properly nourished.

It is a serious question, therefore, whether a farmer can afford to farm more acres than he can farm well; whether in the long run it pays to farm more acres or to farm fewer acres but farm them scientifically, always keeping in view the magnitude of the crop that may be desired. Manifestly, the larger the farm, the larger the investment and hence more grain must be produced in order to pay a fair dividend on the investment. If, on the other hand, by expending the same amount of labor upon one-third less acreage, a farmer could produce even more grain, (with one-third less investment in land) would he not profit by the change? Certainly! But would he? That is the question. For answer I can only cite the reader to what must, by this time, be quite apparent to the casual observer. During the past two unfavorable seasons, in localities where almost universal failure occurred on account of drought, yet here and there a farmer had a good crop. These good crops might be seen with barren farms all around them. All the conditions of soil and climate were identical. Only the farmers were different. Again, in localities where **fair** crops were generally realized, in the midst of the fair crops were farms that more than doubled the yields of the adjacent farms. Here again the difference in the farmers was apparent.

From every view point, it seems reasonable, therefore, that instead of buying more land in order to produce more grain, a farmer should farm what land he has a little better and **thus** produce the larger desired amount of grain. This is certainly true where, as is often the case, a mortgage must be given for the additional acres.

If farmers generally were as eager to increase the yield of grain per acre as they are greedy to possess more acres, they would, as a rule, in my opinion, be better off. Moreover, they would incur less financial risk. Many a family is suffering from the land hunger of its head; many a sleepless night is passed by the family head because of maturing obligations—obligations contracted for land that was not really needed.

With a wheat crop averaging less than thirteen bushels per acre, it seems almost incredible that farmers should covet larger acreage before pushing the wheat yield up to double that amount. Nor is the contention about what may be realized thru the rise in value of land, always a sufficient excuse for going in debt for more land.

The best of cultivation given the soil on a smaller farm will, in most instances, more than make up for the rise in value of the larger farm that is annually skinned, thru bad tillage, and besides permitted to become poluted with weeds.

North Dakota soil is good for an average of twenty-five bushels of wheat per acre and other cereals in proportion. But what is even more profitable than continuous cropping to small grain is giving much larger attention to alfalfa, corn, and dairying. They are not only more profitable but will insure the larger yields of small grain, provided the farmer makes proper use of the manure that will result from feeding the corn and alfalfa to dairy cattle and other kinds of livestock. Moreover, he will not carry all his eggs in one basket. He will be a real farmer, not a soil robber. Instead of impairing the productive power of the soil, he will build it up; he will improve it even while doubling the yield of grain.

Naturally, the large farm that is as well cultivated and as well cared for as the small farm will prove more profitable, but it seldom is, for obvious reasons. Many small farms, intensively cultivated, rather than fewer large farms **extensively** operated will eventually become the glory of the state.

The tractor will turn over many acres in a day, but it makes no manure, and the period that the best of land will produce profitable crops without fertilizer is limited. Moreover, the state is but little benefitted by the man who makes his pile at the expense of the soil and then retires to some milder clime to enjoy it. Rather, it suffers injury. Only those who return to the soil an equivalent for what they take out of it are citizens in the best sense.

NORTHWESTERN DEVELOPMENT CONGRESS

Seven governors of northwestern states today issued a joint proclamation calling a "Northwestern Development Congress" to be held in Seattle June 5 to 8. The remarkable proclamation was made public

by Governor M. E. Hay of Wash. and for four days Seattle will be the capital of the American Northwest with seven governors and hundreds of citizens in attendance at the conference.

The congress is to plan a campaign and suggest legislation which will assist the northwestern states in more rapid development and to stem the tide of immigration to Canada. This fact is set forth by the governors in the proclamation when they say "not realizing the opportunities in their own country, thousands of people from the United States, with hundreds of thousands of dollars in wealth, have developed farms and built new homes under a foreign flag."

States which expect to perfect an organization to work for the American Northwest are Minnesota, North Dakota, South Dakota, Montana, Idaho, Washington and Oregon. The following is the proclamation issued by the governors:

"That an era of new and complex development is opening in the American Northwest there is no doubt, untold resources of wealth, not for the multi-millionaire alone but chiefly for the community at large, are awaiting the coming of second pioneers.

"The soil and climate are second to none, there exists within the borders of these seven states untold opportunities for the development of farms, mines, waterpowers, the utilization of forests, the construction of good roads and the extension of rail transportation. Eighty-five millions of acres of public lands still await the homeseeker. Thousands of acres of logged-off lands, the most productive on which the sun has ever shone, are offered for sale at the lowest possible price. Great ranches are being cut up into smaller farms. Millions of acres of grazing lands are tired of growing buffalo grass and want to produce wheat. In short, success still awaits the willing worker toward the sunset.

"A spirit of unrest exists in the older sections of the United States and in Europe. Five millions of people have returned to the land during the last four years. Not realizing the opportunities of their own country, thousands of people from the United States with hundreds of thousands of dollars in wealth, have developed farms and built new homes under a foreign flag.

"During the present decade men and women will come into the American Northwest as never before if we can but point out to them how radical are the possibilities of progress in our country; how abundant the opportunities in the northwest and that they will not have to face the hardships endured by the first pioneers.

"How to carry this message to human millions and how to assist them to the advantages enjoyed by the older and more highly developed regions, is the problem which the people who know about the American Northwest must solve.

"To determine by a congress of representative men and women interested in all lines of business and social endeavor, how the rapid and intelligent development of our states may best be assisted will contribute greatly to the advancement of this "zone of plenty." The combination of our efforts and the most hearty cooperation between states closely related by location, by natural advantages and similarity of interests, will assist the seven states to more quickly achieve their rightful destiny.

"Taking into account, therefore, these vital considerations for the welfare of our country, we earnestly urge the citizens of our respective states to participate in the Northwestern Development Congress to be held in the city of Seattle June 5, 6, 7 and 8, and to cooperate in carrying out the plans which this congress may adopt for the development of this great principality known as the American Northwest.

M. E. Hay, Governor of Washington
A. O. Eberhart, Gov. of Minnesota.
John Burke, Gov. of North Dakota.
R. S. Vessey, Gov. of South Dakota
Edwin Norris, Gov. of Montana.
J. H. Hawley, Gov. of Idaho.
Oswald West, Gov. of Oregon.

STARTLING FACTS BY A MASTER BUILDER

By Benjamin F. Yoakum, Chairman of the Board and Executive Committee of the 'Frisco Railway Lines

It requires the same intelligent work to develop the soil to its fullest capacity as it does to build up a manufacturing establishment. To build up this country rapidly and successfully we need systematic team work. No one horse can move the heavy load, but when the full team go against their collars the wheels begin to turn.

Millions have been saved in economies in distribution in manufacturing, while but little attention in the same way has been extended in the distribution of the products of agriculture.

The great purchasing power of the world comes from the soil. Each dollar increase in the products per acre of cultivated land in this country means $450,000,000—an average of $5 for every man, woman and child in the United States.

Germany was cultivating its land before America was discovered, yet its average yield of wheat last year was twenty-nine and one-half bushels to the acre; ours was 14 bushels. If our farmers had farmed and treated their soil as the Germans did, last year's wheat crop would have yielded them $600,000,000 more than it did, and we would have raised 209 bushels of pottatoes to the acre instead of only 107. This difference of 102 bushels to the acre would have meant $200,000,000 more to our farmers on potatoes alone.

The development in the Rio Grande valley in Texas has been accomplished by irrigation costing from $20 to $25 an acre to put water on the land, while in the rich valley of the Mississippi River it requires only from $10 to $15 an acre to take the water off.

The farmer has done only one-half his duty to himself and family when he has raised a crop. It is equally important that he understand the market channels thru which his products pass after he ships them and that he may receive the best possible returns for his labor. The cost of getting food supplies to the railroad over bad country roads and of getting such supplies to the homes in the cities is out of all proportion to the railroad charge for transportation. To help cut down the big expense of bad country roads to the farmers, the government provides a little over $100,000 a year and buys battleships for $12,000,000.

The value of farm products in the United States last year averaged about $300 for each member of a farming family. This means that $300 had to clothe, feed, educate and provide everything for one person on the average farm, besides paying taxes, help, new buildings, machinery and tools, repairs, feed and care of animals and general upkeep of the farm. This is a small return. The farmer hitches up early, works long hours, feeds late. Unlike others, he cannot work eight or nine hours a day and quit.

For a century our government has looked with indifference at the rich swamp lands of the Southern States, while England has been furnishing its money and credit to aid Egypt to reclaim waste lands in the valley of the Nile, 4,000 miles away. The need of more acreage under cultivation in the Mississippi valley, to provide homes for thousands of those now huddled in the cities and to produce more food and clothing, should cause our government to take a deep interest in the waste lands of Louisiana, Arkansas, Mississippi and other Southern States. Altho the government has spent over $100,000,000 in putting water on lands in the Northwest at $35 an acre, it has not shown much interest in taking the water off the swamp lands of the South at a cost of from $10 to $15 an acre. These lands, when drained, will yield annually crops worth three times as much per acre as the average in the United States. Such land, when drained and cleared, would cost about $25 an acre, and when cultivated its value would easily be $100 an acre. There are 25,000,000 acres of swamp land in the Southern States of the Mississippi valley, worth today about $300,000,000, which, when drained, would be worth at least $2,000,000,000.

Farmers, and not military power, must restore our economic balance. The politicians pour out the government's money to build fighting machines and starve the agriculturist. A forty-acre farm of reclaimed valley land will comfortably support a family. It costs $55,000 to make a twelve-inch gun. The money that goes to pay for this gun would reclaim 4,500 acres of land and provide homes for 500 people When all the guns on all the battleships are shot off once, the government blows off, in noise and smoke, $150,000. This would reclaim more than 12,000 acres of land and give homes to 1,350 people. The money consumed in powder is lost to all future. The farmers who buy the reclaimed land must pay the government back in ten years, so it does not cost the government anything to build up the country by helping the farmer. We should make more homes and not so many fighting machines.

It is not the amount of vegetables, dairy products and other foodstuffs which a farmer produces that fattens his bank account; it is the prices he can get for them and the waste he can cut out between the farm and the table.

Home building is the strongest instinct in the lives of right-minded men, and, as it is the first duty of a man to provide a home for his family, so it is a patriotic duty of the United States to make homes for its people and their children. Thousandsof our people have been moving into Canada during the past few years, taking up land and making their homes there. It is just as wrong for a nation with unused lands to drive its own people to other countries to seek homes as it is for a man with health and strength to leave his family without shelter.

It is a sad commentary on the work of our government that, of the total revenue for 1910, $71 out of each $100 was used for military purposes, and only $1.85 out of each $100 to aid in the development of our agriculture, which is the foundation of our wealth; and that for good roads, so important to our farmers, only two cents out of each $100 of revenue was appropriated.

The farmer gets forty-six cents for his products and the consumer pays $1 for them. This is not fair. By bringing the consumer closer, the farmer would get more and the consumer pay less. With a $9,000,000,000 crop, one-third retained on farms, it is all wrong for consumers to pay $13,000,000,000 for $6,000,000,000 of products.

The biggest trust is yet to come—the co-operative trust of producers who raise and sell foodstuffs to the American people. Cooperation among purchasers has worked wonders in Great Britain, where 8,000,000 people are enjoying its benefits.

People injured by railroads do not receive more than half the money paid by the roads. The other half is an economic waste and goes to lawyers, court costs, etc.

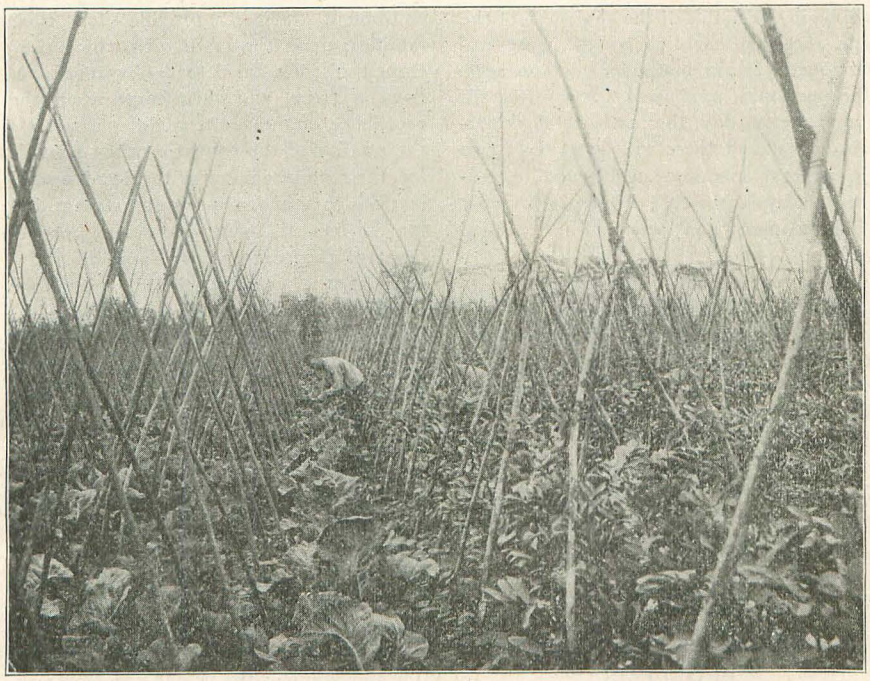
The increase in the cost of living of the railroads the past fifteen years has been exceptional, labor having advanced thirty-five per cent, coal forty per cent, rails and ties fifty per cent, taxes eighty-five per cent, while, as to income, they now receive about ninety cents from the sale of a better class of goods, namely, better transportation, than that which brought them in one dollar fifteen years ago. In other words, when they try to use the dollar of fifteen years since to buy the labor, material, etc., today, they find that dollar shrunk to ninety cents and that they must pay about $1.40 instead of one dollar.

This country needs what our forefathers used in laying its foundation—a lot of old-fashioned common sense. Corporations should be so regulated as to prevent discrimination or injustice to the public, giving fair and equal treatment to all, with favoritism to none.

Good judgment and fair dealing are more general among farmers than others, and when they earnestly take hold of public questions they will occupy a place in our political structure that will make their good judgment and fair conclusions felt in solving the relations of the government and its institutions.

Thomas Jefferson was right when he said, "A government should be frugal and simple, applying all possible saving of the public revenue to the discharge of the national debt and not to the multiplication of offices and salaries." This theory was promulgated in 1801, when the expenses of the government were $9,500,000 annually. Last year they were over $1,000,000,000.

The St. Louis & San Francisco Railroad system, comprising about 8,000 miles, has for years had an agricultural department which devotes its entire time to the promotion of agriculture. It is establishing demonstration farms along its lines, the crops to be grown under instructions of the agricultural department of the 'Frisco. The 'Frisco is furnishing free to planters one hundred varieties of seed for grains and vegetables, and offers cash prizes for the best cultivated and most profitable of these farms; also a gold watch to the girls for best production of tomatoes. We have quit the politician and taken up the farmer.—In Leslie's Weekly.



Many small farms intensively cultivated rather than fewer large farms extensively

PLANS FOR SEVENTH CONGRESS

The plans of the Canadian Board of Control of the International Dry-Farming Congress, of which Pres. J. H. Worst is ex-president, have shaped themselves early, and everything presages the greatest agricultural meeting and exposition ever held in the northwest. It will be the most important year of work in the history of this marvelous movement.

The Dominion government will give full co-operation in the Congress, and it is believed that the Duke of Connaught will open the congress on October 21 in person, the invitation to him, as well as to the Duchess, to attend, being favorably received and now under consideration; Premier Borden, Minister of the Interior Roger, and Minister of Agriculture Bur-

rell, have announced the acceptance of the invitation to attend and participate in the deliberations of the Congress, and arrangements are making for a large delegation of other Dominion officials and agricultural department men. In addition the ministers of agriculture of the provinces of British Columbia, Alberta, Saskatchewan and Manitoba will attend, and also a large number of their staff of investigators, instructors, demonstrators and farm experts.

The United States secretary of agriculture, Hon. James Wilson, is expected to attend, and the cooperation of his department has already been assured, which means the sending of a score or more of its agricultural experts.

President Taft has been invited, and his acceptance is said to be dependent upon the conditions in the fall, as the national election is in November, only two weeks after the congress.

The Dominion government has already arranged to send to Lethbridge a squadron of the world-famous Northwest Mounted Police, whose red coats, military bearing, perfect drill and reputation have made them the most talked-of organization in the world. They will do escort duty to the Dominion, Provincial and State dignitaries and act as body guard to the Duke of Connaught and the ambassadors of the foreign powers who will attend.

The Canadian Board of Control is composed of active agriculturists and educational leaders in the western provinces, the chairman of the executive being Mr. Fred W. Downer, of Lethbridge, a well-known land owner and capitalist of southern Alberta, the honorary chairman being the Hon. Duncan Marshall, Minister of Agriculture of Alberta, and the cream of Canadian citizenship being associated as active workers in the various sub-committees.

The dates of the big congress and exposition have been fixed for the week beginning October 21, a week when the farmers from the United States, having completed harvest and threshing, will be able to participate in goodly numbers, and when the Canadian harvest being finished the western provinces can not only assemble large delegations but can make a creditable exhibit.

The Exposition

It has been determined by the exposition committee that the exposition shall be the most notable ever given in western Canada, and the committee, under the chairmanship of Mr. J. W. McNicol, who is director of the Lethbridge Exposition company, has already begun its work of inviting manufacturers and states to participate. The premium list will include hundreds of valuable prizes, and Alberta, the province in which the congress is to be held, is barred, except for local prizes, this arrangement having been made out of fairness to visiting exhibitors.

The exposition will be known as the International Exposition of Dry-Farmed Products, Machinery, Farm Sanitation, and Labor Saving Devices, and for the first time in the history of the movement a special emphasis will be laid upon special dry-farming implements and the mechanical, health, and labor saving devices.

Model farm homes, model farms, experimental seed farms, farm forestry illustrated by a model farm demonstration of plowing and tillage, power demonstrations, etc., will add practical value to the exposition.

Two afternoons of congress week will be given over to visiting the exposition, at which time each section having special exhibits will be expected to have lectures, and all manufacturers will be asked to have demonstrators on hand for actual work.

The Program

The working program of the congress will be in the hands of the chairman of the nine sections, each chairman being apportioned certain hours for his speakers. The sectional work will occupy certain hours of each day, the institute work certain hours, and there will be at least two big general meetings each evening, addressed by some of the world's most brilliant men and women agricultural leaders.

Each year an effort has been made to have a number of farmers address the congress, and each year the farmers themselves have taken a greater interest in personal participation, and it is believed that the splendid interest shown at this time by the farmers of all states and countries will insure many speakers who will tell from the farmer's viewpoint the methods employed in establishing success upon the dry-farms of the world.

SOME PRESENT DAY RURAL PROBLEMS

By J. H. Worst

((Concluded from April Number)

The Larger Consideration

The larger considerations of the rural problem, however, should not be overlooked as they affect the poise and stability of the Nation. That there will always be a farming population no one will question. But what of its character? Can it be developed as a mighty influence for civic righteousness if conditions of country life are not such as to attract to and hold upon the farms the best, the most enterprising, the most energetic and progressive blood of the land? Not attract population as a matter of duty nor from motives of patriotism, but from free **choice of occupation.** This will not occur until the boy is assured that he can find as good a market for his brains on the farm as in some one of the professions. Not until the farm will afford him as ample a career, financially, socially, and politically, as some city job. Not until the general level of rural social life shall accord with a brainy man's best ambitions.

The farmers of today must remember that times have changed and these suggestions are intended to meet the changed conditions. The things that were in vogue in our youth will never return.

They are as dead as Julius Casear and stubbornness on our part will *never resurrect* them. Agriculture must keep up with the procession or be ground beneath the car of progress.

It will be a sad chapter in our country's history if the future historian shall ever have occasion to write the word peasant instead of farmer when referring to our rural population. For, believe me, much depends upon the mode of life adopted by the rural population; upon the plain but comfortable and convenient household equipment farmers provide for their families; upon the taste with which they embellish their farmsteads by means of flowers, trees, and shrubbery; upon the excellence of the country highways; upon the quality of the education they provide for their children, upon the local organizations they maintain for amusement and for the mental, moral and civic improvement of the community; upon the influence of the country church; upon the cooperation of farmers generally and especially their united action at the polls when necessary to subserve the interests of the masses against political buccaneers; believe me, therefore, when I prophesy that the character of these things will weigh more heavily than big crops and good prices to fix and maintain immovable and permanent the foundations of this republic.

It is a question, therefore, of redirecting the rural educational system, of rehabilating the country church and providing the necessary amusements and recreation for old and young alike in one common educational religious, and social center—presumably the consolidated school. In short, a distinct and superior rural civilization must yet be established, not based upon the frivolities and the surface of manners as emphasized by some "four hundred," but one that is built upon the foundations of old-fashioned honesty, impartial justice and cultured simplicity.

Agriculture Must Protect Its Own Interests

Self protection, therefore, will compel agriculture to assume its proportion of responsibility in business and governmental affairs, as voters, as legislators, and as executive officers, as well as to properly discharge its obligations to society. By no other means can it emancipate itself from the speculative interests that otherwise would pray upon it.

From the ranks of agriculture, men should be called to positions of honor and trust as freely as from any other profession, and the government, for reasons just indicated, should become the purer and better for their larger participation in business and governmental affairs. From the ranks of one vocation as readily as from any other, men should be chosen to fill positions that have to do with making or executing the laws of state or nation. No real democracy can otherwise be assured and in no other way can equal and exact justice be maintained between the producers and the distributors of wealth.

Presidents, United States senators, congressmen and state officers should, upon retiring from office, return to the farm as naturally and with as much dignity as now they are accustomed to return to some city office. The example set by Cincinnatus, the Roman patriot, and by our own Washington, of returning joyfully to their farms after having rendered their respective countries illustrious service, should not forever be held up to the children of our country as remarkable exceptions to an almost universal rule.

To render this larger service, however, agriculture must throw off the lethargy of conservatism—begotten of the centuries—and in the spirit of true patriotism cooperate with the powers that be, wherever its interests are involved, be they political, economic, or educational. The foundations of a more democratic and co-operative public service cannot be laid too soon for the safety of the Republic.

Had agriculture been alert and constructive, instead of inexcusably conservative, such important movements as consolidated rural schoools and numerous other schemes being inaugurated for the improvement of country life would not have been left to the initiative of bankers, merchants, and commercial clubs.

In these as in many other things vital to its own interests, agriculture too long has assumed an attitude of indifference or helplessness. No substantial permanent growth can be anticipated, however, until agriculture formulates its own plant and provides the means for its own betterment. The improvement of rural life must come from within. Agriculture must create its own leaders and become the architect of its own destiny.

What commercial clubs are to the cities and things that make for the cities' development and improvement,—the rural social center with its local organizations should be to the varied interests that go to make up the agricultural community. In other words, country problems should be discussed and solved in the country very much as city problems are discussed and solved in the city.

Moreover, as before indicated, there will always be a rural population. The world must always be fed. It is not a clear question, however, whether the food the people must have and the raw material required in our mills and factories will be produced by American citizens—recognizing themselves and recognized by all others as being on a social and political equality with the professional and distributing classes or be a class that in everything except in name are peasants.

THE AUTOMOBILE AND ROAD SITUATION IN NEW JERSEY

Connecticut motorist No. 3444 figured as the first man in the country to take advantage of New Jersey reciprocity. Tuesday, April 2, he waited patiently all the afternoon in front of the State House at Trenton until New Jersey had opened its gates to the motorists of the country, convinced that a non-reciprocal policy is unwise and unneighborly. Governor Woodrow Wilson, at exactly five o'clock, attached his signature to what has been known as the Stickel bill. A hand-shake with the Governor, and the man from Connecticut scurried outside to his car, removed his New Jersey license, and proceeded forthwith without hesitancy until he met the first policeman, to whom he successfully explained the astounding fact that non-resident motorists were now welcome in the commonwealth.

When Governor Wilson last fall at Trenton stated to a delegation from the State Association of the American Automobile Association that he would sign any fair automobile measure, a belief spread thruout the country that the one state which persistently refused to exchange courtesies would soon secure a law similar to that of the other states. It will be remembered that in the A. A. A. National Tour in October last, Governor Wilson rode from Jersey City to Trenton as the guest of Governor Smith of Georgia, and at that time free passage across the commonwealth was given to the touring non-residents.

In the hearing of April 2 the opposition to the signing of the Stickel bill failed to supply convincing evidence, tho the gathering made quite clear the fact that the farmers of New Jersey were not unanimous in their antagonism to reciprocity. Chairman W. C. Crosby of a joint committee involving the automobile interests of the entire state, concisely presented the argument for the bill,supplemented by speakers from various business organizations. A significant happening at the conclusion of the hearing was the comment of Governor Wilson, who advised the grangers present to get behind the movement for a comprehensive state highway system, which would relieve the counties of the burden of taxation for building and maintaining thru routes, a plan now in effect in New York, Massachusetts, and Connecticut, with certainty of adoption ultimately in all states of the country.

The signing of the bill was witnessed by representatives of automobile bodies from all parts of the state, with the legislators responsible for the measure also present. Assemblyman Stickel had little difficulty in the lower House, but Senator Colgate, even with the cooperation of Senator Edge, found strenuous conditions to contend with in the senate.

President Joseph H. Wood of the A. A. A. State body, who has been identified with the reciprocity campaign from its inception to its successful conclusion, commenting upon the automobile situation generally in New Jersey presents an excellent case for that state:

"Because of the declination of its legislators to participate in reciprocal privileges with other states, New Jersey has accumulated a reputation which has beclouded her otherwise excellent automobile conduct. It was the first state in the country to pass the 'lights-on all-vehicles' measure, and it ended the era of 'speed traps' by taking away the fees from the local justices and constables. It has just passed a law which now awaits the signature of the Governor, permitting the use of convicts in the repairing of roads, duplicating to some extent the system in use in Colorado. This will provide between 1,500 and 2,000 men in jails, penitentiaries, and reformatories, who will be available in roads repair work unquestionably saving to state and county many thousands of dollars. One of the nuisances of automobiling is the muffler cut-out, and this is now prohibited, if the police will insist upon enforcing the law just passed and signed.

"There is no objection whatever on the part of the motorists of the state to paying fifty per cent increased fees in order to gain terms of reciprocity with their fellow-road users in other parts of the country. the motorists are well aware that the problem of the roads is one properly demanding their most earnest attention and substantial co-operation with all others interested in the proper construction and adequate maintenance of highways in these days of multiplied roads travel."

IMPROVEMENT OF FARMERS URGED

President J. H. Worst of the North Dakota Agricultural College has wisely recommended that each farmer plant a strip of trees along the south line of each of his quarter sections for the purpose of eventually, when they are grown, have a tendency to stop the severe hot winds that now have too much freedom over our prairies. Prof. W. C. Palmer suggests that the farm owner gives his farm a name. These

the writer believes are excellent ideas. There are a good many ways of improving our farms in like man ner. Do you believe in "the survival of the fittest?" He who takes the best care of his farm and his live stock and farm machinery will undoubtedly succeed the best. He becomes one of "the fittest" and succeeds best as a farmer. Now, since most of our farm land is under cultivation and not so many big farms to take care of there is no excuse for neglect. There are a good many progressive farmers who are strong believers in civic improvements. They believe in "retouching" all parts of the farm. Are we some of these or are we waiting for our neighbor to take a lead? A farmer or land owner who plants trees in North Dakota on his farm is allowed $3 per acre from the state which value is applied instead of cash as payment for his taxes up to and including the total amount of the tax on his land. We will find that for every dollar invested in trees the land will be worth ten times as much per acre as the amount invested. Are not these inducements worthy of consideration? Each taxpayer pays tax for the strip of prairie that he leaves along side of the highway. A good plan the writer believes is, to break up this strip and seed it for a few years, to keep weeds from along the roadside and when this strip is needed for the road grade there will be no green sod to encounter and this dirt will then be fit for a road bed and with a coating of gravel first packed with a heavy road packer or a split log drag. "In time of peace prepare for war." So why not prepare now for the road work which must be done in two or three years from now if not before. It would be a good investment to improve the highway adjoining your farm. There is just one certain amount of work that must be done and the quicker you are thru with it, the longer will you use the road.

Yours for civic improvement.

—Nels K. Mattson, in New Rockford Transcript.

THE SOIL'S OWN PLEA

A. H. Snyder, Soils, Extension Department, Iowa State College, Ames, Ia.

The following article appeared in a folder issued by The Chicago Great Western Railroad Company operating extensively East ahd South from the Twin Cities. It conveys such practical truths in connection with the raising of crops that we have procured a supply for the benefit of farmers in this vicinity. We believe the lines indicated in this article, if persistently followed, will not only result in larger crops but will make no drafts on the soil's fertility that are not replaced year by y ear,as indicated. If you find suggestions of value in it, we shall feel amply repaid for placing this in your hands.—Ed.

I, The Soil, am the most sacred heritage entrusted to the care of man. Upon me depends the success of all business, and even the lives of man and beasts are dependent upon me. My character determines whether a community or state or nation shall be rich and prosperous or poor and shiftless. I am a good friend of all who treat me well, and show my appreciation of good treatment by bountiful harvests. I am vindictive to the extent that I retaliate upon those who treat me ill, for then I lock up my most valuable treasures. When a man carries his grain to mill, the miller takes a portion of the grain as toll for grinding it; all that I ask for growing the grain is the waste material which is left behind.

I am of a sociable disposition and, therefore do not like to devote all my time and energy to one crop. In fact I get out of condition and cannot do my best if I produce one sort of crop all the time. My favorite crop is clover, because it manufactures the nitrogen of the air into a form that I can furnish to other crops. It also helps me to collect my water supply and to store it better for use in time of drought. I am warmer and feel better and work better in every way if I am allowed to produce my favorite crop, clover, every three or four years.

Live stock are also my particular friends, because they can eat the crops which I produce and return to me the nourishment which I have used in producing them in available form for other crops.

All that I ask is:

1st.—That I be allowed to grow clover every three or four years.

2d.—That the crops I produce be fed to live stock and the refuse given back to me.

If these two simple requests are granted I will continue to produce bounteous crops to assist you in building better roads, affording better schools for the education

Low Fares for Pleasure Trips to Pacific Coast Points

$55 Round trip to Spokane, Lewiston, Walla Walla, North Yakima, Ellensburg, Seattle, Tacoma, Portland, Astoria, Vancouver, Victoria. On sale May 15, 16, 17, 27, 28, June 3, 4, 5, 6, 27, 28, 29 and 30, July 1, 2, 3, 4, 5, 11 and 12. Long limits, liberal stopovers.

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Visit Yellowstone Park enroute
Ask for Particulars

TRAVEL IN COMFORT ON ANY ONE OF THE THROUGH ELECTRIC-LIGHTED FLYERS EAST AND WEST DAILY.

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Original and direct line to Gardiner Gateway, official entrance to Yellowstone Park, Season, June 15-Sept. 15

of the boys and girls you love so much, and making your home more comfortable and happy.

ARE YOU SEEKING A FARM?

On May 25th there will be an exceptional opportunity to secure a choice irrigated farm on the Belle Fourche irrigation project in South Dakota. Nearly one hundred farms, each containing from 40 to 80 acres of irrigable land will be opened to entry on that date for homeseekers under the homestead and reclamation laws.

Here is an excellent chance for the man with a capital of $1500 to $3000 to secure a piece of land which will support a family in comfort in a region where climate and soil are both adapted to various kinds of agriculture. The Reclamation law provides that the Government shall construct the necessary engineering works for the irrigation of its lands. When these works are ready to supply water, the farms are opened to entry for any qualified citizen of the country and upon very easy terms. All details concerning the methods of filing, the terms of water right, and the conditions of residence may be learned by addressing either the Statistician of the Reclamation Service at Wahisngton, D. C., or the Settlement Agent, 802 Federal Building, Chicago, Ill. The Belle Fourche valley is one of the most attractive sections of South Dakota.

It is situated north and northeast of the famous Black Hills mining region, has good transportation facilities and is already a well settled country with cities, towns and villages, excellent schools and churches.

The Government has invested more than $3,000,000 in constructing an elaborate irrigation system to reclaim 100,000 acres, and invites industrious citizens to establish homes thereon.

NORTH DAKOTA FARTHER AHEAD THAN EVER

State is First in Acreage and Yield of Spring Wheat—Barley a Winner

State Commissioner of Agriculture W. C. Gilbreath, expresses himself rather forcibly on that point.

"Again in 1911 has North Dakota more than maintained the pre-eminence in magnitude of acreage and yields of the principal small grain crops of the United States," he says. "The latest comparative, statistical tabulation shows that the state stands first in acreage and yield of spring wheat, with 9,150,000 acres under crop and a total yield of 73,200,000 bushels. Minnesota stands next with an acreage of 5,350,000 acres and a yield of 43,935,000 bushels. Washington was third with 1,131,000 acres and 24,545,000 bushels.

"In flaxseed yields and acreage North Dakota still more emphatically demonstrates her supremacy with an acreage of 1,200,000 and a total crop of 9,120,000 bushels constituting nearly half of the total yield and acreage of the entire United States. Montana was second with a yield and acreage about one-third as large as this state, with South Dakota and Minnesota following closely.

"In barley the state stands third on the list of commonwealths with 1,050,000 acres, and fourth in yields with 20,475,000 bushels. California leads in this cereal with 40,000,000 bushels, and Minnesota is third with 28,025,000 while Wisconsin just noses out ahead of North Dakota with 20,910,000 bushels.

"Fifth in acreage with 2,186,000 acres, and sixth in yield of oats with 51,230,000 North Dakota very creditably rounds out her agricultural record for 1911—admittedly an off year.

"Even more remarkable than the foregoing and more significant than any as an indication of the magnificent agricultural vitality of the state, is the progress made during the past two years in corn acreage of North Dakota. The acreage as returned by the state assessors in the spring of 1911 was 452,936 acres, compared with 230,197 acres in 1910, being a gain of nearly 100 per cent. No other state in the 100,000 or over class comes within 90 per cent of this remarkable per cent gain, and while it is not claimed that North Dakota is a corn state, in the general acceptation of the term, yet this splendid showing, especially when considered in connection with the federal expert estimate of twenty-five bushels an acre, must be conceded to be final proof that North Dakota has fairly and definitely taken her place within the corn belt of the union thus adding another testimonial to the remarkable suitability of her soil and climate to the needs of almost any kind of vegetation growing in the temperate zone.

IRRIGATION PROJECT NEAR BILLING, MONT.

To the end that approximately 125,000 acres of arable land be reclaimed by irrigation, the Big Horn Irrigation and Power Company is preparing to file articles of incorporation, and will endeavor to secure a concession from the government giving them the right to build a dam across the canyon of the Big Horn River, construct irrigation canals and build an electric railroad. The project was surveyed some time since by the government engineers who, it is said, pronounced it feasible and practicable, but was passed up for the reclamation of the Huntley project. The land which it is supposed to irrigate, lies on each side of the Big Horn river and in the event that it is so reclaimed, it will furnish homes for several thousand per-

FARGO FOUNDRY CO., Fargo, N. D.

The Largest Foundry Machine Shop and Boiler Shop in the Northwest. A large stock of Structural Steel and Iron always on hand. Full Line of Blacksmith Tools for Farm use. The Biggest plant in the Biggest Little City in the world.

We make a specialty of modern Fire Escapes. Best Tools and Skilled Workmen is the secret of our success. While in our city call and see us and judge for Yourselves.

End of North Bridge, N. P. Ave.

sons and will add materially to the wealth of the nation and the agricultural development of the northwest.

SEED TIME AND HARVEST

The Secretary of Agriculture has directed an investigation to be made concerning the dates of sowing and harvesting and that the results be published in a series of bulletins. The first of these, entitled "Seedtime and Harvest; Cereals, Flax, Cotton, and Tobacco; Dates of Planting and Harvesting in the United States east of meridians 102-104," has just been issued.

"Because southern latitudes are first to feel the advance of spring," says the bulletin, "it is quite natural to suppose that planting and harvesting always move northward with its advance. As a general fact, the progress of sowing and harvesting is northward, but there are interesting exceptions. Of cereals sown in the spring, sowing and harvesting always move in a northward direction, while of those sown in late summer or fall the sowing movement is always southward. Harvesting progresses northward in the case of all cereals except buckwheat. Corn planting progresses northward; winter wheat sowing moves southward. The harvesting of corn and of winter wheat progress northward, but the sowing and harvesting of buckwheat progress southward."

The sections of the United States wherein corn planting begins simultaneously are shown by means of a map crossed by lines extending from east to west. As shown by this map, corn planting begins in southern Florida and in southern Texas about February 15 in normal years. Fifteen days later it is in progress in northern Florida, southern Louisiana, and central Texas, and by May 15 it has progressed as far north as southern Maine, New Hampshire, and Vermont, central New York, northern Wisconsin, Minnesota, and North Dakota.

"In interpreting the map," to quote further, "it should be remembered that there are many causes which influence the times of sowing and harvesting and, while a line connecting places which sow or harvest simultaneously will run in the main from east to west, there are curious irregularities, deviations here and there, depending primarily upon altitude, rainfall, and character of soil. An increase in altitude in analogous to an increase of latitude and therefore when these lines cross the higher altitudes they will naturally bend toward the south. In regions of great annual rainfall, the line will also bend southward, due to physiological peculiarities of plant growth. While the waters of the Great Lakes undoubtedly mitigate the severity of the continental climate in that vicinity, yet they also delay seasonal changes and thus retard spring growth and hence cause a later harvest. This explains why the lines in the vicinity of the Great Lakes are bent southward."

Relative to the rate of progress of corn planting, the bulletin says: "At the starting point, near Brownsville, Tex., planting begins on the average date of February 10. The movement reaches the Texas-Oklahoma line on the mean date of March 12, and, therefore, crosses Texas in 30 days, or at the rate of 18 miles per day.

"From the time this movement starts at the Texas-Oklahoma line until it reaches the Oklahoma-Kansas line 25 days elapse. The distance from one State line to the other is about 220 miles. Planting, therefore, moves northward thru Oklahoma at the rate of 9 miles a day. The rate of progress thru Kansas is 10 miles; thru Nebraska, 19 miles; thru South Dakota

The Culvert That Lasts

Culverts that crack, break and wear out quickly are useless. You want culverts that will endure under every condition—that once installed will last a lifetime. You can get such a staunch, serviceable culvert at a lower cost than any other make, by asking for the American Ingot Iron Culvert—the choice of the biggest railroads.

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These wonderful metal corrugated culverts are **not** made of galvanized steel, but of galvanized **American Ingot Iron—guaranteed 99.84% pure.** Steel, on account of its impurities, rusts and corrodes quickly. This means a short life and unsatisfactory service. American Ingot Iron, due to its purity, resists rust for many years, and culverts made from this iron outlast steel culverts many times over. They will not crack, break, or wash out in freshet time as other culverts do. Easy to handle and install—no maintenance cost.

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Any manufacturer named below will gladly send you expert money, time and labor saving advice. Road builders, county officials, taxpayers, etc., can profit by this free service. **Only** the manufacturers named here make and sell **American Ingot** Iron Corrugated Culverts.

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The Road Supply & Metal Co., Topeka, Kan.
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Montana Culvert Company, Missoula, Mont.
North Carolina Metal Culvert Co., Greensboro, N. C.
Northwestern Sheet & Iron Works, Wahpeton, N. D.
North-East Metal Culvert Co., Nashua, N. H.
Pennsylvania Metal Culvert Co., Flemington, N. J.; Warren, Pa.
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Nebraska Culvert & Mfg. Co., Lincoln, Neb.; Wahoo, Neb.
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50 miles; and thru North Dakota, 44 miles per day."

The soil temperature at which corn germinates has been ascertained by numerous tests in field and laboratory. The air temperature at which corn planting takes place in actual practice, however, has not heretofore been established, but from data assembled in this bulletin, it is believed to be approximately 55 degrees F. Air temperature records at corn planting time in the vicinity of 127 cities east of the Rocky Mountains are given in tabular form.

Compilations of dates of sowing and harvesting by states, by sections of states, and units (tracts 70 miles square) are given for corn, wheat, oats, rye, barley, buckwheat, flax, cotton, and tobacco; maps and illustrations explain the text; and interesting discussions are given of the phenomena of seedtime and harvest.

EXTENSION DEPARTMENT

W. C. Palmer, Agricultural Editor

CROP INSURANCE

To insure against fire, hail, or storms is a common practice. Why not insure against crop failure? It comes more often than fire. It comes more certainly than hail or storms, and it can be insured against as effectively.

The beauty of this kind of insurance is that it can be had without paying for it. In fact the farmer will be paid for making this crop insurance, will be paid by securing bigger crops in the good crop year. This crop insurance is secured thru rotation of crops and stock. Rotation of crops brings in cultivated crops as corn and potatoes; legumes as alfalfa, clover and peas; grasses as timothy, brome grass, wheat grass—and stock to convert these into higher priced products, as beef, butter, pork, or eggs, and manure.

The cultivation given corn or potatoes kills weeds and plant diseases; saves moisture. The legumes and grasses crowd weeds, starve plant diseases and add humus. The legumes also add nitrogen.

While the cultivated crops, the legumes and the grasses, are preparing the land for grain they make crops worth fully as much as an ordinary grain crop. And again if these crops are fed to livestock the profit from them can be increased several fold.

The grain crop that is grown in rotation with cultivated crops, legumes and grasses is greatly increased in the good crop year and is insured for the poor crop years.

This kind of insurance not only insures a crop in an erratic season but it insures good business where it would otherwise be greatly slowed up on account of the crop failure.

ALFALFA
Supt. W. R. Porter

To insure a good stand of alfalfa, manure the land and put in a cultivated crop or summer -till. Keep the land so well cultivated that the largest possible number of weed seeds will germinate. Let none of these go to seed. This will also store a large amount of water in the soil for the alfalfa. The following spring keep the land free from weeds with either the Acme, peg tooth, or disc harrows. Do not plow as a compact seed bed is very essential to alfalfa.

Seed northern grown alfalfa seed which shows strong germinating power and which is entirely free from dodder. Seed it at the rate of 6 to 10 pounds per acre between the 1st and 15th of June. Inoculate by seeding screened soil from an old alfalfa field with the seed. Seed the same depth as flax. Do not seed with a nurse crop. Do not cut the alfalfa or allow it to be pastured the first season. If you get a good stand never cut or pasture it any season after September 1st. After the second year disc every spring.

ROAD MAKING

The keynote to road making is the control of the moisture. When too much moisture is present in the soil it becomes mud, and when too little it becomes dust. To cement the soil particles together the most effectively the soil should contain only what moisture it will bring up from below itself. This means that the moisture that falls as rain should be removed from the road bed as quickly as possible. This can be best done by keeping the road bed higher in the center and smooth. In short, keep in mind that the surface of the road bed is a roof. If the road bed is level or contains ruts the water will stand there, gradually soaking in and making mud. That is not all, when the road dries up the lumps and edges of ruts are ground up into dust. So that a poor road bed is muddy in wet weather and dusty in dry weather.

Stone is perhaps the ideal road material, but it is usually out of the question. Earth roads can be made. The keynote to success in making them is controlling the moisture. When there is too much of it the earth becomes mud; when too little the result is dust. There is a happy medium between two extermes, when the soil packs hard. In most soils, excepting sandy ones, it is not difficult to maintain this favorable moisture content. Keep the center of the road higher so that water cannot remain there. When it does the result is ruts in wet weather and in dry weather the sides of the roads are ground up into dust. Drainage ditches should be provided along the road. If water stands there it will soak under the road bed and soften it.

Another important factor is to keep a space of fifteen to eighteen feet free from grass and weeds, which, if allowed to grow on the road, take up so much moisture that the soil grinds up into dust.

In preparing a road, the soil that is moved onto the road bed for surfacing material should be free from sods and weeds. It should be disced, harrowed and thoroly packed. If it is left to be packed by the regular traffic on the road ruts will be formed and the results in many cases is that the road is worse than before it was repaired.

The King split log drag is the best and cheapest implement so far invented for

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The best place on earth for the farmer of small means. Rich soil; good water. All the advantages of an old-established community.

Improved farm lands can be bought cheaper here now than in any other community, of equal advantages in the northwest.

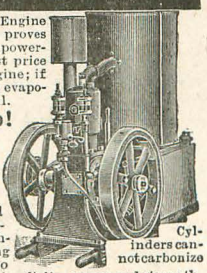
Write for list of "Snaps in Farm Lands"

Eastern Agents Wanted

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Amazing "DETROIT" Kerosene Engine shipped on 15 days' FREE Trial, proves kerosene cheapest, safest, most powerful fuel. If satisfied, pay lowest price ever given on reliable farm engine; if not, pay nothing. No waste, no evaporation, no explosion from coal oil.



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Gasoline is 9c to 15c higher than coal oil. Still going up. Two pints of coal oil do work of three pints gasoline.

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—only engine running on coal oil successfully; uses alcohol, gasoline and benzine, too. Starts without cranking. Only three moving parts—no cams—no sprockets—no gears—no valves—the utmost in simplicity, power and strength. Cylinders cannot carbonize

Mounted on skids. All sizes, 2 to 20 h. p., in stock ready to ship. Engine tested before crating. Comes all ready to run. Pumps, saws, threshes, churns, separates milk, grinds feed, shells corn, runs home electric lighting plant. Prices (stripped), $29.50 up. Sent any place on 15 days' Free Trial. Don't buy an engine till you investigate money-saving, power-saving "DETROIT." Thousands in use. Costs only postal to find out. If you are first in your neighborhood to write, you get Special Extra-Low Introductory price. Write! (138)

Detroit Engine Works, 385 Bellevue Ave., Detroit, Mich.

keeping the surface of the road bed smooth. By running it over the road after every rain lumps and loose soil are scraped into the ruts. A smooth road bed results.

CULTIVATING THE GROWING CROPS

L. R. Waldron, Supt. Dickinson Substation, Dickinson, N. D.

Under semi-arid conditions, cultivation is of prime importance in preventing the loss of moisture as has already been explained. In addition, cultivation is of great value in killing weeds, and in getting air into the soil. The oxygen of the air is necessary for the proper growth of the roots, and for the support of certain bacteria which work upon nitrogen for the use of the plant. It used to be a saying that "cultivation is manure." This statement today will hardly pass muster, but by conserving soil moisture and by liberating plant food, the cultivation of the crop accounts for a wonderful increase in plant growth.

The 18th annual commencement of the North Dakota Agricultural College will be held on Tuesday, June 4, 1912. The address will be deliveerd by Senator Wesley C. McDowell of Marion at 10:30 A. M. This will be preceded by the commencement procession which begins at 10 o'clock.

The other events of the day are the commencement dinner at one o'clock, President's Reception at three, Alumni Ball and Banquet at six o'clock.

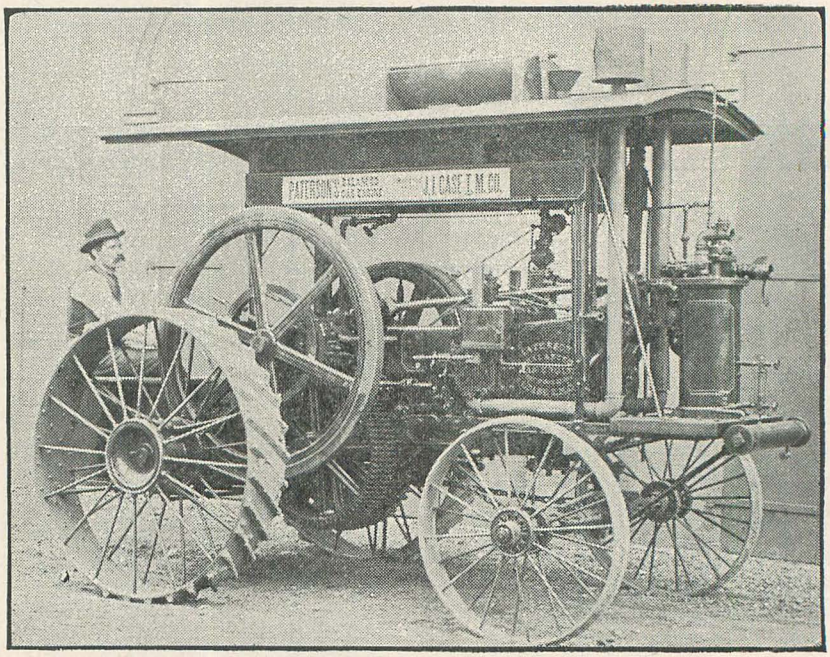
Other events of the commencement will be the commencement concert by the School of Music on the evening of Friday, May 31st. At 7 P. M. June 1st, the College Societies will hold their annual banquets. On Sunday, June 2nd, at three P. M., Bishop Robert McIntyre of St. Paul, Minn. will deliver the Baccalaureate Address at the College Armory. On Monday June 3rd at 3 P. M. the Senior Class Program will be given on the college campus. At 8 P. M. the Senior class play will be given at the college armory, which winds up with the senior swing-out at ten'oclock.

NEW CASE TRACTOR PLANT TO COST $1,250,000

Plans are under way for the construction of an immense new gas tractor plant in Racine, Wisconsin, for the manufacture of the Case Gas Tractor.

The plant will have a yearly capacity of 3,000 gas tractors and 2,000 stationary and portable engines. More than $1,250,000 will be expended for the buildings and equipment and the factory will be completed by next October.

The J. I. Case Threshing Machine Co., Inc., is the pioneer in the Gas Tractor field, altho its product has only been on the market a comparatively short time. The first Case Tractor was built twenty years ago. The picture of this "old-timer" is here shown, and altho it seems crude in comparison with the new 40 H. P. and 60 H. P. Case Tractors, it should be remembered that tremendous advances in agricultural engineering have been made since 1892.



FIRST CASE GAS TPACTOR BUILT 20 YEARS AGO

During all the intervening years the J. I. Case experts have been working out improvements in the design and construction of Gas Tractors. No product of this company is ever placed on the market until it has been thoroly perfected, and it is due to this extreme conservatism that the Case Tractor was not marked during its experimental stage, as has been the case with other gas tractors. The company prefers to do the experimenting at its own expense rather than at the expense of the farming community.

The magnitude of the new Case Gas Tractor plant is indicated by figures which the company has recently made public. It will occupy six and three-quarter acres and will have a total floor space of eleven and one-quarter acres.

The three main buildings will be the grey iron and semi-steel foundry, the machine shop and the raw material storage plant.

The plant will have the finest mechanical equipment which unlimited financial resources can command.

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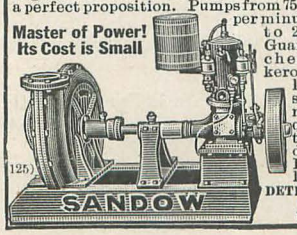
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For Drainage, Irrigation, Dry Docks, Excavations, Coffer Dams and all places where large volumes of water must be moved, the SANDOW engine and direct connected centrifugal pump is a perfect proposition. Pumps from 75 to 4,000 gallons per minute. Engine 2½ to 20 horsepower. Guaranteed. Uses cheapest fuel—kerosene or distillate. Write stating your needs. We will quote you by return mail. Address Irrigation Dept. for Catalog No.124.

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Among Our Advertisers

WHERE DO THE HIDES GO?

Did you ever stop to think what becomes of all the hides of the steers, cows, sheep, etc., and what final disposition is made of them? We know that most of them are made up into shoes, and you may at the present moment be wearing a pair of shoes made up from the hide of your prize steer, but few of us have any idea in what quantity these hides are consumed by just one single institution.

The following interesting figures showing the consumption of hides in only one large shoe factory were submitted by the F. Mayer Boot & Shoe Co., manufacturers of the well known Mayer Honorbilt Shoes. These figures cover one year's operation in the big Mayer shoe factory at Milwaukee.

Total number of hides consumed last year, 382,573.

These are divided as follows:

55,447 steers,	62,160 sheep,
28,676 cows,	2,320 horses
51,602 calves,	1,360 kangaroo,

181, 008 goats.

All these animals placed in a single file would make an unbroken line reaching from Chicago to Detroit. The requirements for one day's operation make a line over a mile long. To work this quantity of hides into shoes requires over a thousand people, who draw enough wages to keep a city of 5,000 people well fed and happy.

Milwaukee, Wis., where the factories of the F. Mayer Boot & Shoe Co. are located, is the greatest leather market in the world, affording this company advantages in the selection of hides, one reason for the superiority of their product.

Many of our readers are acquanited with the F. Mayer Boot & Shoe Co. and the excellent quality of their shoes. They have been advertising extensively in this publication for years and many of us have discovered the economy of buying Mayer Shoes for the whole family.

LIGHT FOR THE FARM HOME

Every year farmers are getting more and more of the conveniences that used to be the exclusive boast of the city dweller.

Farmers are getting tired of using kerosene lights, or even the cheaper form of gasoline lights. Many of them are installing gas machines which operate automatically, and make a permanent gas producing outfit that gives all the advantages of city gas, at as cheap or cheaper cost.

One of the best of these machines is that produced by the Detroit Heating & Lighting Company, of Detroit, Mich,. With this machine, the fuel, which is gasoline, is stored in a large reservoir at some distance from the house, where it is entirely safe. By an ingenious device the vapor from the gasoline is properly mixed with air and forced thru the pipes of the house, so that it can be turned on and used instantly in any part of the house for lighting, or used in the kitchen in a gas stove in summer.

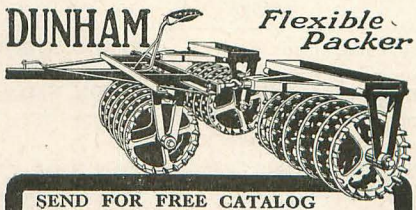
It is a real gas making machine, and is well worthy of the consideration of the farmer who is looking for a permanent lighting plant that will last as long as his house. Some of these machines have been in service over 30 years and are still doing their work well, and with almost no attention.

HOLSTEIN-FRIESIAN ASSOCIATION

The twenty-seventh annual meeting of the Holstein-Friesian Association of America will be held at the New Court House, Syracuse N. Y., on Wednesday, June 5, 1912. This is for the purpose of electing officers, hearing reports and discussing many important amendments and additions to the By-Laws of the association.

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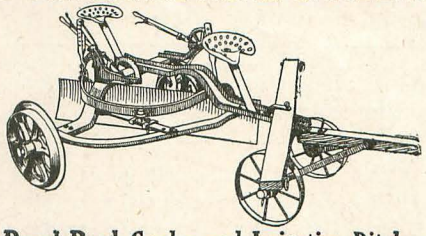
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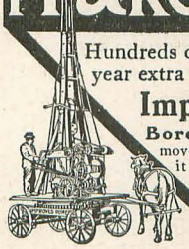


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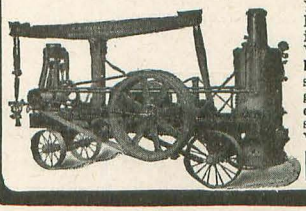
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Hundreds of farmers **right now** are making from $1000.00 to $2000.00 a year extra money, besides keeping up their farm work, making wells with the
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Bores 100 ft. in 10 hours. One man can run it; a team operates it and easily moves it over any road; Bores slate, coal, soapstone—everything except hard rock, and it drills that. No tower or staking—rotates its own drill.
20 years actual service all over the world have proven this the fastest and most convenient well machine made. Easy terms. Write for catalog.
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Forty acres under plow. A never-dry river runs across corner. County Road runs diagonally thru land. Irrigation ditch north of land, if you care to use it. Five miles to railroad. One of the finest apple orchards in world near mouth of valley. 400 acres plowed. Fine for grain, flax, etc. 225 acres grazing land. May divide if desirable.

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North Dakota Farmer

Entered as second class matter in the postoffice at Lisbon, North Dakota.

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Vol. 13 MAY, 1912 No. 11

Surely the silo is a sure sign of frugality and prosperity.

Do not expect to find wilt proof flax. Prof. Bolley makes no such claim for his wonderful discovery. We may secure wilt resistant flax.

Put in at least an acre of sweet corn. With care it will produce about fifty bushels of sweet corn. Pigs like sweet corn as well as do children.

The crop in potatoes will be doubled the present season. While the potatoes are growing organize and cooperate a shipping association in your neighborhood.

In some sections of the state the coming fall we predict that a man may look about him at night and witness the destruction of a thousand dollars' worth of straw.

The farmer, of all men, is the one to be interested in good roads. One has only to watch the great care taken by the railroads in keeping their roadbed in good shape.

If one-tenth the advice given at the institutes regarding alfalfa were heeded, every farmer in the state would have at least a five-acre piece of ground seeded with this legume.

Were a commission appointed to examine every farm in the state and place over every entrance to the farm the words "soil robber" or "soil conserver," would you be proud of your title?

Some of our readers find that clover is one of the most profitable crops to raise. As high as one hundred dollars an acre has been realized from a clover farm but it takes scientific management and plenty of hard work.

The day is not far distant when the straw of North Dakota will be utilized in the manufacture of paper. As the by-products afford profits in the packing industry so should the by-products on the farm yield a profit to the farmer.

We strongly urge our readers to try a few small evergreens. Do not purchase too small or too large trees. Try at least one hundred this year. They will add many dollars to the value of your farm besides giving the farmstead a home-like appearance.

Now is the time to pack eggs. Only sterile eggs should be used. One part water glass to ten parts water will form a solution that will preserve eggs in excellent shape. As the water glass tends to close the pores of the shell, when these eggs are used for boiling purposes a small pin hole should be made in one end of the egg before boiling.

There is considerable discussion regarding the best plan for lighting the farm home. When we take into consideration the various uses to which a gasoline engine can be put, aside from running a twenty-light dynamo we believe a small gasoline engine and dynamo outfit to be by far the safest, equally as brilliant and far more convenient.

Why plant the summer garden and then leave it to the ravages of the cut worm? These pests are very partial to green grass even when sprayed with a solution of Paris green. If this preparation is sprayed over the garden they will forsake at once. Remember that every bird is worth its weight in gold. Down with the bugs. Up with the birds.

The prize offered by the Northwest Development League for the best five bushels of wheat grown in the American Northwest is certainly very attractive. No entering fee is charged. Together with the five bushels there must be displayed ten bundles from six to ten inches in diameter. Keep an eye on this prize and at the same time prepare to raise your choicest wheat.

During the present year many silos will be erected thruout the state. Since a large percentage of the corn in this state is used as roughage the silo furnishes the very best means of handling the corn crop of North Dakota. It will certainly be the means of doubling the amount of livestock. There is no more palatable food for the livestock than what the silo affords.

The writer recently visited southern Minnesota after an absence of over thirty years. In the place of deserted farm buildings including a very small house and dilapidated barn he found a commodious farm home, capacious barn together with a silo. In the place of never-ending grain fields he found pastures of sheep, cattle and horses with here and there a corn field. Those who abandoned the farm in the eighties came to North Dakota and again impoverished the land and many of them have passed on to the north and west.

We hope the time has gone when the fortune-hunting farmer obtains the greatest possible credit at the home store and then send all his surplus cash to the mail order houses. So many have thus taken advantage of the home merchant that it was absolutely necessary to raise the price for those who did buy at home, thus giving the mail order houses an opportunity to contrast their prices with those of the home merchant, and that sadly to his disadvantage While we believe that the mail order house has its mission in furnishing what the home merchant cannot afford to carry in stock, we also believe it the duty of every farmer to encourage the home merchant. In misfortune he will find in the home merchant a true friend and by building up the home town he will eventually increase the value of his farm and be the means of establishing a home market for your produce.

WORK WITHOUT PAY

The Department of Agriculture has on its rolls 33,000 employees who do not receive a cent of salary. These are the crop reporters who have volunteered to furnish the Department with monthly reports on the crop conditions in their own localities—they make the reporting system of the Agricultural Department the best in the world. There are nearly 3,000 regular county correspondents and nearly 30,000 township correspondents, whose reports form the basis of the Department's statistics. Four of these correspondents have been steadily at work for 50 years and more than a hundred of them have been making regular reports for thirty years.

When a man will work steadily, year in and year out, without receiving a cent of pay, he certainly deserves some recognition from the Nation, and it has been suggested that the four veteran correspondents ought at least be voted the thanks of Congress.

Pure Food Advertisers

The products advertised below are in compliance with the pure food law of North Dakota and of the highest grade.
ASK YOUR GROCER FOR THEM.

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A GUARANTY OF PURITY. A WELCOME GUEST at every table where the HOUSEWIFE demands the BEST. THE MONARCH LABEL insures QUALITY in Coffee, Catsup, Pickles, Maple Syrup, Canned Goods or any article bearing the MONARCH BRAND of REID MURDOCH & CO. CHICAGO.

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NUTRITIOUS-WHOLESOME

One package, 10 cents, makes one pint of wholesome Fruit Jelly. All flavors from true fruits.

ANOTHER PURE FOOD PRODUCT

CEREKOTA

Self-Rising

Pancake Flour

Is a Scientific Preparation of Healthful Appetizing Ingredients and the Best Flour Milled in North Dakota

GUARANTEED Pure and Wholesome

Ask Your Grocer for a Trial Package

Bemmels Milling Company

Sole Manufacturers

Lisbon, North Dakota

Livestock Department

FARM AND STOCK NOTES

N. J. Shepherd

Better thin the fruit than prop the tree.

Exposure ages machinery faster than use.

Using an inferior sire is breeding downwards.

The best farm products have the least competition.

Regularity in feeding and work makes long lived horses.

Keeping hogs in the orchard is beneficial to the trees.

Livestock on the farm will turn unmarketable feeds into money.

When the purchaser seeks the producer the best prices are obtained.

With all farm products there is always room and profit at the top.

A check in the growth of young stock is a loss that cannot be regained.

It is not the big gain that pays, it is the economical gains.

True economy upon the farm consists in utilizing, so far as possible, waste materials.

It is not what we produce but what we utilize that makes the profit.



A Pair of Stutsmau County Twins.

The older and heavier an animal is, the heavier must be the ration of support.

While a routine way of doing things saves time, we must improve that routine when possible.

The breed adopted for the object sought will give better results and at a lower cost proportionally.

Learning by mistakes is one way, but it is usually expensive unless some one else makes the mistake.

As a rule a full-grown seed, well-matured will produce a good plant irrespective of the soil that produced it.

A pig that is stunted in the early days of its life should never have a place in the breeding herd.

Every day that stock is fed counts on the expenses and no loss should be allowed on account of neglect.

The fact that systematic men do so much work with so little effort is largely due to their keeping their implements of labor in good order.

The first cost must come out of the price whether it be large or small; the cost being covered every cent extra is so much clear.

In transplanting a tree or plant the point aimed at is to get the roots in the earth as nearly in the same condition in which they were before removal.

A sow that has been tried and proved to be a good mother should be retained as long as she can be made serviceable, as depending upon young untried sows is always done at an increased risk.

The brood sow is nearly all the time either suckling a litter of pigs or growing a litter to be farrowed in a few weeks to come; so that her food requires to be of the muscle and bone-growing kind.

The crowning excellence of improved breeds of cattle, sheep and swine is not so much that they will produce carcasses far beyond the normal at full maturity, but that they will yield a medium product of choice meat at an age considerably below that of maturity.

Gombault's Caustic Balsam

The Worlds Greatest and Surest

Veterinary Remedy

HAS IMITATORS BUT NO COMPETITORS!

SAFE, SPEEDY AND POSITIVE.

Supersedes All Cautery or Firing. Invaluable as a CURE for

FOUNDER,
WIND PUFFS,
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RINGBONE,
PINK EYE,
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BONY TUMORS,
LAMENESS FROM SPAVIN,
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REMOVES

BUNCHES or BLEMISHES,
SPLINTS,
CAPPED HOCK,
STRAINED TENDONS.

SAFE FOR ANYONE TO USE.

We guarantee that one tablespoonful of Caustic Balsam will produce more actual results than a whole bottle of any liniment or spavin mixture ever made Every bottle sold is warranted to give satisfaction Write for testimonials showing what the most prominent horsemen say of it. Price, $1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use.

The Accepted Standard VETERINANY REMEDY

Always Reliable. Sure in Results.



None genuine without the signature of
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Sole Proprietors & Distributors for the U.S. & CANADA.
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NOTHING BUT GOOD RESULTS.

Have used GOMBAULT'S CAUSTIC BALSAM for more than 20 years. It is the best blister I have ever tried. I have used it in hundreds of cases with best results. It is perfectly safe for the most inexperienced person to use. This is the largest breeding establishment of trotting horses in the world, and use your blister often.—W. H. RAYMOND, Prop. Belmont Park Stock Farm, Belmont Park, Mont.

USED 10 YEARS SUCCESSFULLY.

I have used GOMBAULT'S CAUSTIC BALSAM for ten years; have been very successful in curing curb, ringbone, capped hock and knee, bad ankles, rheumatism, and almost every cause of lameness in horses. Have a stable of forty head, mostly track and speedway horses, and certainly can recommend it.—C. C. CRAMER, Training Stables, 990 Jennings Street, New York City.

Sole Agents for the United States and Canada.

The Lawrence-Williams Co.

TORONTO, ONT. CLEVELAND, OHIO.

GREATER CARE SHOULD BE EXERCISED IN PREPARING WOOL FOR THE MARKET

Prof. W. B. Richards.

A great deal of complaint has been made by the wool buyers and the commission houses dealing in wool in reference to the way in which wool is prepared for the market by the sheep raisers of North Dakota and the adjoining states, including Minnesota, South Dakota and a part of Montana. There is no question to anyone who is familiar with the way in which the wool is put on the market by the average sheep raiser of North Dakota but what there is ground for complaint on the part of the wool trade. It is claimed, no doubt rightfully, by the wool commission merchants that this lack of care in placing the wool on the market is one of the chief reasons the wool from these states does not grade as high as eastern wools as for example, Ohio, New York and Wisconsin wools.

The Reason for the Complaint

The leading complaints made against the way the wool is placed on the market by the sheep growers of this section are as follows: 1st. That the wool contains burrs and chaff and other foreign matter. 2nd. That tags and inferior wool are tied in the fleeces. 3rd. That the wool is not properly tied and packed. 4th. That sisal and what is commonly called wool twine is used to tie the wool in preference to a more desirable grade of twine. 5th. That when wool twine is used, more is used than is necessary and that the excess of twine is used for the purpose of increasing the weight of the wool because the twine is cheaper than wool.

These Complaints can be Overcome

It is to be seen that some of these objections are due to dishonest practices on the part of the sheep raisers. Placing tags in the fleece with the hopes of increasing its weight, and using an excess of twine in tying fleeces are fraudulent practices which no respectable farmer would resort to. The facts of the case are that anyone who resorts to these things, is the loser even tho he may think that he is the gainer in receiving an additional amount for his wool. He is not only the loser personally but his practices help to give the wool growers of the whole state a bad reputation and consequently lower the grade and price of wool to all. It is time our farmers came to a decision that practices of this kind get them nothing.

In order to prevent the fleeces from becoming dirty, full of chaff, etc., tie the wool properly and place it on the market in good condition. This will require an extra amount of time and care on the part of the sheep raiser. But everyone who is familiar with the wool business knows that the extra effort will be well rewarded. It is to be hoped that from this time on our North Dakota farmers as well as all sheep raisers in adjoining states will make an effort to place their wool on the market in better condition so that the wool will grade higher and consequently sell for a higher price. When this is done, the wool produced in this state will net a much higher profit.

How to Keep Fleeces Clean

In order to keep the fleeces of the sheep clean, they should be kept from fields that contain burrs and anything that will adhere to the wool. Sheep should also be kept from straw stacks, for if this is not done, their fleeces will become full of chaff. To keep hay seed and dirt from the wool, care must be exercised when the sheep are fed hay or any form of roughage. They should never be fed roughage without shutting them from the yard or shed in which they are fed during the time of feeding. Improper mangers are also responsible to a great extent for dirty fleeces. Chaff and dirt can be prevented from getting in the wool around the neck and forequarters if the side of the rack facing the sheep is made tight with only a place below for them to draw out the hay. Mangers of this kind are used exclusively at this experiment station.

How to Tie Wool Properly

In order to tie wool properly and prepare it for market in a proper manner, it is necessary to pack and tie each fleece separately by means of a wool box. Many tie the fleeces without the use of a wool box but it cannot be done well without the use of a wool box and it is doubtful whether there is much time saved in doing it in this way. Every sheep raiser should have a wool box. The wool boxes can be made at home very readily. If you do not know how to construct one, refer to some of your agricultural publications or inquire of any good sheep man and he will inform you how to construct one.

In tying wool with boxes, make it a point to keep the fleece together as much as possible. Lay the fleece with the skin side down next to the box. Turn the edges of the fleece in to the center of the fleece so that as much of the skin as possible will be on the outside. The care exercised at this stage of the process will determine largely how well the fleece will look when tied. This done, raise the sides of the box, pack well, but this is generally necessary to close the box, then tie tightly. The result should be a aquare, firm pack with the clean skin side of the wool making up the surface of the fleece. Tied in this way, the clip is much easier handled and there is no danger of one part of fleece mixing with another. It also adds so much to the appearance of the wool, that it cannot fail to induce the buyer into paying more for the wool.

The Kind of Twine to Use

Do not use sisal or binder twine of any kind to tie your wool. What is commonly known as wool twine has been generally used heretofore, but for the reason that a very coarse rough twine is being put on the market at the present time, wool buyers object to its use. The fibers of this twine adhere to the wool and are only removed with difficulty, which is the chief objection to it's use. Any hard glazed twine not exceeding one-eighth inch in diameter is suitable and is recommended in preference to wool twine at the present time. What is known to the twine trade as "India" three-ply number four and one-half size, is a good kind to use. It will be well to order your twine sometime before the shearing time, of your dealer, so that he can send for it in case he does not have it in stock. It is to be hoped that all the sheep raisers of North Dakota will endeavor to place their wool on the market as has been advocated from this time on so as

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Our stock was gathered early, is kiln dried and has been thoroughly selected, graded and tested.
Heavy demand—limited supply, so order early if you want GENUINE NORTH DAKOTA SEED CORN,
Alfalfa, Clover, Timothy
Don't delay renewing your pastures this year with our seeds which are unexcelled in purity, vitality or productiveness. Our 1912 Catalog is free—send for one.
FARGO SEED HOUSE
Fargo, - North Dakota

to raise the grade of our wool in the estimation of the wool dealers. The reform, however, can not be brought about unless where is a general reform by the majority of the wool growers.

ON SILOS

Services Rendered by the Silo

1st. It affords a means of preserving large quantities of succulent, palatable food for winter use, as well as for summer use, in time of drought or scarcity of grass.

2nd. It furnishes the cheapest, easiest and safest means of handling corn and other roughage, such as clover and alfalfa.

3rd. Because of the increased amount of food that can be stored, the number of cattle has in many cases been doubled. Doubling the stock gives increased opportunities for winter work, larger returns, more manure and hence increased fertility to the soil.

Requisites of a Good Silo

It should be air tight. If air finds access to the ensilage it is bound to spoil. The silo should have the greatest practicable depth, with a minimum surface exposed on top. This will give less waste on top from exposure.

The largest amount of feed per cubic foot can be stored and the lateral pressure is so great that air is excluded from the sides.

Durability and cheapness of construction. These are important points.

Farmers do not want to build a silo every ten or twelve years, nor do they want to spend much time in keeping a silo in repair. A silo then should be constructed that will stand the test of time, wind and fire. A poor silo is dear at any price. The durable silo that will stand for years is the cheapest silo. Good silos have been built and are being built every year of wood, brick and concrete. As to the kind of material for each farmer to use depends upon a number of conditions:

The availability of different kinds of materials, the first cost of erecting the silo.

Whether or not the builder is a renter or sole owner of the property upon which he is building.

The concrete silo, properly reinforced, can claim all the requisites of a first class silo.

Wind storms have no effect upon concrete silos. Should fire destroy the barn, one is sure to have the ensilage fodder left without injury, and the rats cannot gnaw thru.

The state dairy commissioner's office will furnish bills of material and as far as possible give instructions and assistance in the construction of concrete silos.

Five monolither concrete silos have been build in North Dakota this year. The cost of the constructiou varied from $305 to $387. These silos have a capacity of from 100 to 130 tons.

SILAGE AND SILOS

Have you ever made a chemical test of the silage in silos near the wall and near the center so you can give an analysis of same, and does the silage keep as well in a wooden silo as in a concrete or brick silo? If there is any difference I do not see why it should be kept away from the farmer. We ought to know if it is a fact that there are dry mould in the silos and in which kind of a silo the fodder keeps the best.

And what do you know about the silos the federal experts helped put up in North Dakota last fall. Did any of the cement silos freeze and crack. Any information you can give will oblige.

Granite Falls, Minn. A. J. A.

Answered by J. H. Shepperd

I do not believe you will find any difference in the way silage will keep in well constructed silo buildings whether they are of wood, concrete or brick. If the silo wall is air tight, the silage has the same appearance when it comes from next to the wall as it has when it comes from the center of the building, particularly if it has been packed next to the wall when the ensilage was put in.

There is great difference in the life of the different kinds of silos. Other than that, I do not think you will find any appreciable difference.

I have not looked up the silos built by the federal experts last fall, but surely would have heard of it, if there had been any trouble from cracking. They were built carefully and well reinforced, so that I do not expect that any trouble will be experienced in them.

Ensilage freezes to the walls of most silos in this country and is something of a nuisance on that account. The freezing does not hurt the silage for stock, and all that is necessary is to break the frozen ensilage loose from the walls and leave it in the barn a few hours before feeding time, so that it will thaw out. After that it can be fed the same as any other ensilage.

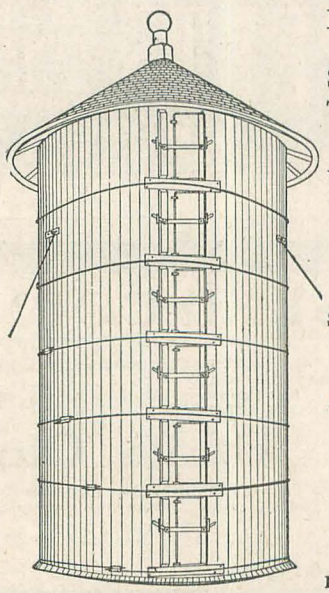


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Farmers--Silo Your Fodder

The untold advantages of the silo and the possibilities of its development and use, are becoming known to increasing thousands each year.

Now is the Time to Start. Get Started Right and RIGHT NOW



FIRST—
Get a Good Silo and Get It Early.
SECOND—Erect and Fill It.
THIRD—
Wonder How You Ever Got Along without It.

THE WEYERHAEUSER SILO

Is made on the Pacific Coast, the home of Fir Lumber

Strong Permanent Swinging Door, Steel Hoops and Anchors

COMPLETE WITH ROOF IN ONE SHIPMENT

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EVERETT - - WASHINGTON

IMPORTANT AMENDMENT

Amending Regulation 2, Section 4, paragraph 2, recognizing the Canadian National Records for Percheron Horses

Effective on and after April 15, 1912

U. S. Department of Agriculture,
Office of the Secretary.

Regulation 2, section 4, paragraph 2, of the regulations governing the certification of recognized breeds and purebred animals, issued under date of January 18, 1912, effective on and after February 1, 1912, and identified as B. A. I. Order 186, is hereby amended so as to include therein and recognize for the purposes enumerated thereunder the Canadian National Records for Percheron horses: Provided, That no horse or horses registered in the Canadian National Records for Percheron horses shall be certified by the Secretary of Agriculture as purebred unless such horse or horses trace in all crosses to animals which are proved to the satisfaction of the Department to be of that breed and to have been imported from the country in which the breed originated.

Done at Washington this eleventh day of April, one thousand nine hundred and twelve.

Witness my hand and the seal of the Department of Agriculture.

W. M. HAYS,
Acting Secretary of Agriculture.

CORN BEST RELISHED GRAIN FEED

Among livestock from the horse down to the chicken without exception corn seems to be the most appreciated grain fed. It has been suggested that it is possibly on account of the kernels of corn breaking up into nutty pieces, instead of forming a more or less pasty mass in the mouth as oats, barley and wheat will do. Another suggestion has been that the oil in the corn kernel is a particular delicacy for livestock. In any event, the fact remains that they like it remarkably well. It is also the most fattening of any of the grain feeds, and therefore particularly adapted for finally feeding livestock for market. It also produces the highest gain per hundred pounds of grain fed of any of the farm crops.

ST. PAUL UNION STOCKYARDS CO., REPORT FOR APRIL, 1912

Comparison of Receipts and Shipments of Livestock

Receipts

Railroads	Cattle	Calves	Hogs	Sheep	Horses	Total Cars
C. R. I. & P.....	639	219	1378	1	12	48
C. G. W.....	1321	.91	4603	906	30	134
C. M. & St. P.....	4089	1527	10826	2407	34	332
M. & St. L.....	2446	782	9780	392		232
C., St. P., M. & O..	2450	1257	16892	414	336	348
C. B. & Q.....	111	97	720	2		15
M. St. P. & S. S. M.	4172	3122	9033	498		307
Gt. Nor.....	7340	4547	19153	3957	40	589
Nor. Pac.....	3648	1435	5781	3268	3	239
St. P. B. & T.....						
Driven in.....	1197	88	999	280	42	
Rotal.....	27413	13665	79147	12125	497	2244
Increase over 1911	6768	1239	4340		238	352
Decrease from 1911				735		
Jan. 1 to date.....	09807	36459	402857	111893	2444	9576
Increase over 1911			64172	33075	1091	1023
Decrease from 1911	1835	4283				
Average Wts.....	766	140	220	83		

Shipments

C. R. I. & P.....	1472	1			1	43
C. G. W.....	2293	2.0	.202	335	1	78
C. M. & St. P.....	4672	184	9144	1729	31	247
M. & St. L.....	609	93			2	20
C., St. P., M. & O..	3346	412	8501	1744	66	198
C. B. & Q.....	1274			745	21	46
M. St. P. & S. S. M.	393	38		1770	97	34
Gt. Nor.....	3038	34			171	87
Nor. Pac.....	959	31		247	35	46
St. P. B. & T.....						
Driven Out.....	573	395	69	30	154	
Total.....	18629	1438	17916	6600	579	799
Increase over 1911	5574			3557	215	119
Decrease from 1911		3597	1835			
Jan. 1 to date.....	52615	5041	98862	70985	2502	2991
Increase over 1911			5092	28935	1107	
Decrease from 1911	5922	9647				82

CLASSIFIED ADS.

One Cent a Word

Small advertisements will be classified under appropriate headings at the low price of one cent a word for each insertion. Cash must accompany all orders. Each initial or number must count as one word. TRY IT HERE.

LIVE STOCK

HORSES

FOR SALE
Percheron, Belgian and Shire horses
J. W. & F. T. PETERSON, Litchfield, Minn

CATTLE

North Branch Stock Farm. High class Shorthorns. Herd, bull, Supreme Judge 177722—pure Scotch, John Donelly, Grafton, N. D.

FOR SALE
GALLOWAY CATTLE
J. W. & F. T. PETERSON, Litchfield, Minn

SWINE

POLAND CHINA PIGS, also Shropshire sheep. Seed grain. GEO. N. SMITH, Amenia, N. D.

EGGS AND POULTRY

EGGS FOR HATCHING. White Plymouth Rocks (Fishels Strain) $5 per 15. I have the Best in the Northwest. No exceptions. **Indian Runner Ducks** from Choice High Bred Stock, $2.50 per 11. **Canadian Wild Geese,** $1 per egg.
C. H. McGEE
Oriska, N. Dak.

MISCELLANEOUS

Envilla Stock Farm, Cogswell N D. will quote you special prices on Angus Cattle, Shetland Ponies, Duroc Jersey Hogs, Wolf and Fox Hounds, Pure Bred Poultry, Pet Stock. Write them.

THE MOUSE RIVER LAND AND LOAN COMPANY AND THE MOHALL STATE BANK

At Mohall, Renville County, North Dakota, have a large list of farm lands for sale, and terms and prices are better than in any other part of North Dakota. They would be glad to have you write them for prices and terms. Our slogan is, "Own your own home in the Mouse River Loop."

FOR SALE: Registered Jerseys. Bull calves and one mature Bull at reasonable prices. W. G. Weeks, Backoo, N. Dak.

RED-POLLED AND GALLOWAYS
Shropshire Bucks
J. S. BIXBY, - - LISBON, N. D.

WANTED—Young Men to take the Railway Mail Clerk examination called for the Dakotas; salary $900, work half time, common school education required. Passing means appointment. American Institute, Dept.—68-Dayton, Ohio.

FOR SALE. Creamery in first class condition at a bargain at Crystal, N. D. For further information write to
J. S GESTSON, Sec. CRYSTAL, N. D

FARMS WANTED
TO FARM OWNERS: Our plan puts you into communication with buyers at low cost; write for particulars.
Co-operative Advertising Company
Fergus Falls, Minn.

FOR SALE AT A BARGAIN. As I am hard up, must sell my ¼ section of Kidder Co. land, worth $3,000. $2,000 will buy it. This offer is limited. One-half cash, balance to suit you.
Owner, Lock Box 2, - Pettibone, N. D.

A BARGAIN FARM. 200 acres, 9 miles from Eldon Miller Co., Mo., a Division point in Rock Island, R. R. 125 acres in cultivation; 100 in bottom, no buildings; good orchard, fine water, well fenced; 30 acres meadow $20 per acre. Other good farms for sale. **Goodrich Realty Co., Eldon, Mo.**

FREE INFORMATION about **British Columbia Lands** for settlers. Mild climate on the Pacific Coast. Pre-emption laws very favorable. Write for copy of law and plan of securing Quarter Section. Address **Land Information Bureau, 203 Carter-Cotton Building, Vancouver, B. C.**

Egg-Laying Contest

For three years Tasmania has been holding egg-laying competitions under Government supervision, the third of which will terminate in May of this year. In the last competition the average cost of feeding each bird was $1.54 and the average value of the eggs per bird was $3.59, the average price per dozen being 25 cents. The profit per bird of the winning pen was $4. The first competition the winning pen of six birds, White Leghorns, laid 1,248 eggs, and in the second competition first place went to a pen of Black Orpingtons, which laid 1,318 eggs.

These competitions, says Consul Baker, at Hobart, in a report to the Department of Commerce and Labor, are proving a successful means of promoting popular interest in the subject of intense egg production and are serving as object lessons to poultry raisers who are endeavoring to learn means of accomplishing the most profitable results.

SHIPPING IN FANCY HORSES

Geo. W. Gehl lately closed a deal in Joliette, Ill., for the purchase of a fancy imported Belgian stallion, which is expected to arrive in Langdon tomorrow, and which is represented to be about the best piece of horse flesh that was ever brought to this county. The animal is only 3 years, coming 4, and even now weighs a ton, but will make a still larger horse as he gets a little older. He is a dark chestnut with silver mane and tail, and has already carried off several blue ribbons at exhibitions. This horse is a half brother of Challenge, Saturn and Jupiter, three of the best Belgian prize winners in America. Mr. Gehl paid a fancy price for the animal, but claims that he has got something to show for it. Cavalier County Republican, April 2..

North Dakota Farmer: Fifty Cents a year: 3 yrs., $1.00. Agents wanted.

EGGS

White Plymouth Rock
15—$1.50 100—$5.00

Barred Plymouth Rock
15—$1.50 100—$5.00

White Holland Turkeys
10 Eggs—$1.50

ANGUS CATTLE OXFORD DOWN SHEEP

Willobank Farm
Eastgate Bros. Larimore, N. D

ST. PAUL UNION STOCKYARDS CO. REPORT FOR APRIL, 1912

Comparison of the Origin and Disposition of Livestock

Origin of Livestock

State	Cattle	Calves	Hogs	Sheep	Horses	Total Cars
Minnesota	21605	11958	62980	7691	97	1748
Wisconsin	1421	1061	5635	420	11	144
Iowa			139		94	8
Far South	24				242	17
So. Dakota	800	206	2592	167	41	63
No. Dakota	3165	425	7719	403	12	228
Montana	327	1	82	3444		32
Far West						
Manitoba & N. W. T.						
Far East						
Returned	71	14				4
Total	27413	1366.	79147	1212.	497	2244

Disposition of Livestock

So.St. Paul P'k'rs.	11127	8582	60962	8809		
City & State Butch.	602	398	1478	892		47
Outside Packers	201	372	16001	1744		159
Minnesota	3786	471		169	2.2	132
Wisconsin	2088	40	21		160	88
Iowa	3585	89				102
Nebraska	311				1	10
Kansas & Missouri	651	1				15
So. Dakota	2094				3	52
No. Dakota	127				69	10
Montana & West	337	18			2	14
Far South	1980					42
Manitoba & N. W. T.	53				34	3
Mich. & E. Can.	128	2			37	9
Chicago	756		416	3795		54
Ills (ex Chicago)	1798	33				56
Eastern Points	61				21	2
Returned	71	14				4
Totals	18629	1438	17916	6600	579	799

S. C. Buff Orpingtons, S. C. Black Orpingtons, M. Pekin Ducks and Indian Runner Ducks.
Maude I. Matthews - Larimore, N. D.

Eggs for Hatching

Orpingtons.....White.....Buff
Rock.....White.....Buff
Wyandottes.....White.....Buff
Wyandottes.....Silver.....Golden
Also a few cockerels.
Write your wants. Book order early.
O. A. Barton, Valley City, N. D.

R C R I REDS
Eggs $2 00 and $1.00 for 15. Orders booked now. Some stock for sale, trios at $5.00, if taken at once. The best egg laying strain in Northwest Write to
K. H. Thomte, - Lisbon, N. D.

EGGS FOR HATCHING from pure bred Buff Orpingtons. $1.50 for 15; $2.50 for 30.
F. M. PEZALLA, - - CAYUGA, N. D.

BARRED ROCK
Choice Stock and Fair Treatment.
ROBERT B. REED
Box 2. Amenia, N. D.

BUFF WYANDOTTE EGGS for hatching. Fowls for sale. Also twelve breeds of Fancy Pigeons. M. B. NOBLE. Hillsboro, N. Dak.

BARRED ROCKS
Bred to Lay and Win
Won all first at Fargo, N. D. State Show, 1906, 1907, 1908, 1909 and 1911. Stock at reasonable prices
PETERSON BROS. Harwood, N. D.

HAUSMANN POULTRY FARM
Breeders of W. Wyandottes and S. C. W. Leghorns
Hillsboro, - North Dakota

E. A. TOW
Breeder of
White Wyandotte Chickens, Toulouse Geese, Burbon Red Turkeys, Pearl and White Guineas. Eggs in season. Write for prices. **Lisbon, N.D.**

S. C. W. LEGHORNS
Prize winners' stock for sale. Eggs a specialty. **GEO. A. FOWLER,**
Box 486, Casselton, N. D.

SILVER-LACED WYANDOTTES
Thoroughbred, Wide Open-laced, Big Utility Birds. Bred for Business. Eggs for Hatching: 15, $1.50; 30, $2.75; 50, $4.00; 100, $7.00. Cockerels, $2.00, each.
Anthony Elm,
Lansford, N. Dak.

WHITE WYANDOTTES. If you want eggs from an early maturing, heavy laying, prize winning strain of White Wyandottes, write me. I am developing a special laying strain by use of the trap nest. Prices reasonable. Write
M. C. JAMES, Valley City, N. D.

MAKE YOUR HENS LAY MORE EGGS
I have a method that will make your hens lay every day; it never fails. Write for it. 2c stamp.
MRS. B. F. WILCOXON,
Hillsdale, Wyo., Dept. 8

WHITE AND BUFF WYANDOTTES that always win Choice stock for sale. EGGS for hatching from pens of well-selected stock, sure to produce winners. Prices reasonable. Satisfaction absolutely guaranteed. Write me your wants.
L. O. CUMMINS, Casselton, North Dakota

FOR SALE. M. B. Turkey Toms, raised from our Diploma Stock, $5.00 and up; also Eggs from 26 varieties poultry. Catalog free.
L. GULDEN, Osakis, Minn.

Rose Comb Black Minorcas
Eggs for sale, $2 for 15 eggs
C. WYSH, CASSELTON, N. D.

SINGLE COMB BUFF ORPINGTON EGGS
$1.00 per 15 or $5.50 per 100 from my thoroughbred farm range flock. $2.00 per 15 from my prize winning pen. **Mrs. D. W. Swanson, New Rockford, N. D.**

Seeds, Trees and Gardens

WINDBREAKS

By J. H. Worst

In a great and ofttimes windswept prairie country, like the Dakotas, nothing could exert a more salutory influence upon the climate than windbreaks. I am confident that a system of windbreaks, set out and properly cared for, would, after having attained sufficient height, add millions of dollars annually to the farmers' income. Moreover, the cost of planting and cultivating trees in sufficient numbers to materially modify the evil effects of drought, hot winds, and even of winter blizzards would work no great sacrifice of time nor money upon the farmers of the state. But to accomplish the maximum of good, the work should be undertaken simultaneously and performed systematically. At least one row of willow trees—either the white or the golden Russian variety—should be planted along every cultivated field abutting onto the south side of all the east and west highways thruout the entire state. This arrangement would result in a windbreak, practically every mile, extending east and west across the state, and from the South Dakota line northward to the Canadian boundary. In the course of ten years, the trees should be about twenty feet high, forming a compact hedge. In fifteen years, they should be from 30 to 40 feet in height.

Good Effects. The good effects resulting from these windbreaks may briefly be enumerated as follows:

(1) The low continuous hugging winds of early spring that carry the fine soil away in clouds, uncovering whole grain fields, in certain districts, would be practically dissipated or rendered harmless.

(2) Weed seeds that are now carried from the foul fields of shiftless farmers upon the farms adjacent would be greatly hindered, if not entirely prevented.

(3) The moisture and temperature would be lowered in summer and raised in winter.

(4) Hot winds would practically cease to injure the crops. After hurdling a few miles of windbreaks, they would for obvious reasons, part with their destructive influence. Neither would winter blizzards be very severe. Better still, if South Dakota were to adopt the same plan.

(5) The encouragement the trees would offer for the multiplication of bird life would cause the birds to increase in such numbers as to not only devour the worms the trees themselves would propagate, but also the grasshoppers, crickets, and other destructive insects that infest the crops.

(6) The beauty these towering bands of green would add to the general landscape in summer time if nothing else were taken into consideration, would be worth while.

Willows Recommended. I would recommend willows for the following reasons:

(1) Because they never blow out of root.

(2) Because they never break down from the weight of snow drifts.

(3) Because they are long lived and make a compact hedge from the ground up.

(4) Because if from any cause they should be injured, as by fire, or by winter killing in the wood, they will sprout up again from the root.

Other trees, such as elm, ash, cottonwood, etc., look pretty and are somewhat protective, yet none of them equal the willow for an effective windbreak. They make better timber, but timber is not the chief consideration. The thing sought is an obstruction to the wind currents.

Every farm, however, should have a tree plantation of five or ten acres, planted in a solid body, or around the farm buildings for shelter and for fuel in the years to come.

Some Objections. Some object to these windbreaks:

(1) Because they will cause muddy roads in the spring and possibly throw snowdrifts across the roads during the winter.

(2) They would prevent teams from turning in the roadway when plowing a field.

(3) They would exhaust the fertility of the land for a rod or more next the trees, etc.

All these objections seem puerile, however, in the face of the tremendous and positive advantages the windbreaks would confer upon the whole state.

Small Expense. The expense would not be great. A strip of land a rod wide and ten or twelve inches deep should be plowed where trees are to be planted. This strip should be plowed in the spring and cultivated at intervals during the summer in order to destroy the weeds and to conserve a whole season's moisture.

The following spring a willow cutting should be set about every three feet, in a perfectly straight row, and the row cultivated as one would cultivate a row of corn—and about as often. Continue this cultivation for about four years and the trees will take care of themselves thereafter.

The cuttings should not cost more than one dollar for a quarter section of land and the cultivation would cost next to nothing; it would be done during leisure hours.

In short, if each quarter section farmer were to plant and care for one-half of a mile of trees, it would put a practically continuous series of windbreaks, one mile apart, from South Dakota all the way up to Canada.Could a quarter-section farmer afford to do this?

Of course, the quarter-section farmers on the north side of the road would bear half the expense—perhaps indirectly. That could easily be arranged.

Can you think of anything that would so favorably modify and improve North Dakota climatic conditions and that would at the same time so improve its landscape appearance, especially when you take into account the small cost and feasibility of the project? Think it over, farmers, and state your objections, if you have any, that seem to outweigh the protection and other advantages such windbreaks would confer upon the state.

WHY NOT POTATOES?

The recent wholesale importations of potatoes into New York from the old world ought to cause some rather deep and quiet "reflecting" on our part. That in a country as wide and big as the United States it is necessary to bring potatoes—just plain common potatoes—from clear

PREVENTION

White Diarrhoea Can be Prevented and Cured

After years of experiments we have discovered a sure cure—or money back.

25c. Package. 6 Packages, $1.00

Prevention is not a cure-all It only prevents and cures White Diarrhoea in baby chicks and Cholera in older fowls. One ounce of prevention is worth tons of cure. In tablet form.

PREVENTION CO.
Box 1127 Atlantic City, N. J.
Agents Wanted

1900 C. C. DIBLEY & SON 1912
BREED THE BEST
Barred Plymouth Rocks Light Brahmas Single Comb Rhode Islands Red
White Plymouth Rocks Buff Wyandottes Columbian Wyandottes
Look up our winning in Poultry Herald, February and March numbers.
Stock and Eggs for Sale
WOLVERTON, - - - - - - - MINNESOTA, R. R. 1

across the ocean, is strange indeed. And this too in the face of facts like the following:

Henry Schroeder, near Dilworth, Clay County, Minnesota, in the spring of 1911, bought 420 acres of land paying $75 an acre for it. He planted it all to potatoes and in the fall the potato harvest brought him in $120 an acre, or in other words, paid for the farm and left him $45 an acre clear money besides.

Mr. E. D. Grant, the Secretary of the Clay County, Minnesota Potato Growers' Association, in 1911, planted 80 acres to potatoes in the same locality, and the crop sold for $8,976, or $112 an acre.

These potatoes were grown in the well known Red River Valley of Minnesota and North Dakota and there are thousands of acres in these states that will duplicate these yields and returns. This valley is noted too for the *quality* of its potatoes. Keep up the war cry, "Back to the soil," the facts justify it.

SEED POTATOES

J. H. Shepperd, Agriculturist, Agricultural College, N. D.

The Size of the Seed Potato is not as important as the selection. A medium-sized tuber is as good for seed purposes as a large one from the same hill. It has been found that when large, medium and small potatoes were planted whole, the crop decreased in proportion to the size of the tubers planted. This varies with different varieties. Yet the greatest net profits were not secured from the largest potatoes as the extra yield did not equal the greater quantity of seed required. Sixteen stations have reported similar tests and all agree with the preceding statement. This should be sufficient to settle the question of what sized seed to use. This does not, however, favor the selection of small or even medium sized seed from the bin; there is no surer way of running the crop out.

The Size to Cut Seed Pieces should depend upon the variety and upon the fertility and culture of the soil. Pieces should be cut to weight and not to number of eyes. On good, well prepared soil small pieces are satisfactory, but they should be planted closer than large ones. Unfavorable seasons favor large sizes. Pieces weighing about two ounces will be found satisfactory under ordinary conditions. A crop grown from large pieces will mature slightly ahead of one grown from small cuttings.

The results that we have secured in trials at three of our substations in planting whole large, whole small, and two eye piece average tuber cuttings indicate that under dry land conditions there may be more advantage in planting whole potatoes than under those prevailing where the trials quoted above from the sixteen stations were made.

Average for two years:

Edgeley Substation: whole large, bushels per acre, 154.6; whole small bushels per acre, 111; two-eye pieces bushels per acre, 109. Dickinson Substation: Whole large bushels per acre, 162.3; whole small bushels per acre, 77.2; two-eye pieces bushels per acre, 115.7. Williston Substation, Whole large, bushels per acre, 99.3; whole small bushels per acre, 77.2; two-eye pieces bushels per acre, 78.2. Average: whole large, bushels per acre, 138.7; whole small, bushels per acre, 92.4; two-eye pieces, bushel per acre, 100.9.

The above table shows that the average results from a two years' trial on the three sub-experiment stations, Edgeley, Dickinson and Williston, gave 37.8 bushels more tubers per acre from planting large entire potatoes than from the ordinary two eye pieces. The difference in the amount of seed used, however, was twenty bushels or slightly more per acre, which leaves the balance in favor of the large tuber rather small. The price is usually enough greater at planting time than at the digging season to more than offset this advantage. The results are interesting in that they show that under dry land conditions even those minor features which tend to stimulate the early growth of a crop have an advantage not observed under humid conditions.

The Quantity of Seed per Acre will depend entirely upon the size of the seed pieces and the distance apart of planting. It ranges from 8 to 20 bushels per acre. It is poor economy to plant long distances apart merely to save seed.

Maturity of the seed seems to have an important bearing on productiveness. Potatoes not quite fully mature frequently give the larger yield. This is probably due to the keeping qualities of the seed. It is supposed that fully mature potatoes undergo some physiological change when stored, and that this change is detrimental. The changes are more rapid in mature than in immature tubers, hence the lessened yield.

It pays to grow the potatoes to be used for seed on heavy soil on account of the larger yields secured. This probably accounts for the great popularity of Red River Valley potatoes in the south. Something of the same results may be secured by growing the seed under a heavy mulch straw. This has been proved by many trials in both this country and in England.

The first sprout is the strongest and if it is allowed to grow and is then removed two or more weaker ones will be thrown out. The sprouting of the seed uses the food stored up for the growth of the young plant. Two much care can not be exercised in storing the seed potatoes so that there will be no danger of sprouting. None but firm, hard tubers should be used for seed.

The Time to Cut the Seed is just before it is to be planted. The practice of cutting and allowing the cut surface to dry should be condemned. No harm is done by coating the cut surface with land plaster.

If for any reason it is desired to keep the cut seed for several days, it may be done by pouring water on the ground on the north side of a building, then place the cuttings on the moist ground and cover with a heavy canvass. Seed may be kept firm and in good condition for several days in this way. It may be necessary to use some such scheme in case of heavy rains or disagreeable weather.

CUTWORMS

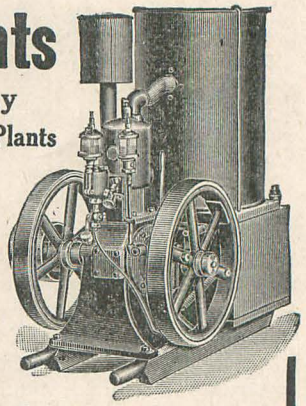
Tomatoes, cabbage, sweet potatoes and other vegetables and garden plants, and especially those which are started under glass and transplanted, are subject to serious injury by cutworms. They appear sometimes in great numbers in spring and

Detroit Irrigation Plants

Are the Best That Money Can Buy

Sold at Lower Prices Than Are Asked for Inferior Plants

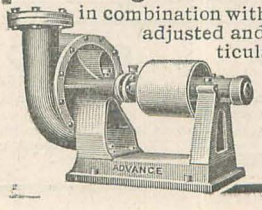
No More Irrigation Troubles



We have solved the problem in a way that is at once the most satisfactory and economical. No matter how difficult your installation may be, we can fit you out with a better outfit at a lower price than you can get elsewhere.

You MUST have a thoroughly reliable, strong, simple and economical engine, and there is none other so strong, simple, reliable and economical as the

Amazing Detroit Kerosene Engine



in combination with just exactly the right pump adjusted and arranged in just exactly the right manner for your particular work. If you want advice as to how to proceed to get the best results with the least investment and cost of operation, write us at once giving full and complete details, addressing your letter to our Irrigation Specialist.

DETROIT ENGINE WORKS

Box 517 (124) Detroit, Mich., U. S. A.

early summer and frequently do severe injury before their ravages are noticed. The method of attack is to cut off the young plants at about the surface of the ground, and as these insects are of large size and voracious feeders they are capable of destroying many plants in a single night, frequently more than they can devour. During the past two years these insects, working generally thruout the United States, destroyed hundreds of thousands of dollars' worth of crops. By the timely application of remedies, however, it was demonstrated by the Department of Agriculture thru field agents and others of the Bureau of Entomology engaged in the investigation of insects injurious to truck crops and sugar beets in some of the principal trucking regions, notably in tidewater Virginia, in southern Texas, in the vicinity of Rocky Ford, Colo., in southern California, in the vicinity of Sacramento, Cal., in Stark County, Ind., and in some other regions, that these insects can be readily controlled, large areas being successfuly treated. The usual method of control is by the use of poisoned baits.

Take a bushel of dry bran, add 1 pound of arsenic or Paris green, and mix it thoroly into a mash with 8 gallons of water, in which has been stirred half a gallon of sorghum, or other cheap molasses. After the mash has stood several hours, scatter it in lumps of about the size of a marble over the fields where injury is beginning to appear and about the bases of the plants set out. Apply late in the day so as to place the poison about the plants over night, which is the time when the cut worms are active. Apply a second time if necessary.

When cutworms occur in unusual abundance which happens locally, and sometimes generally, in some seasons, they exhaust their food supply and are driven to migrate to other fields. This they do, literally in armies, assuming what is called the armyworm habit. At such times it is necessary to treat them as we do army worms. While the methods which have been advised are valuable in such cases, these remedies may be too slow to destroy all the cutworms and we, therefore, have to employ other methods. These include trenching, ditching, the plowing of deep furrows in advance of the traveling cutworms to trap them, and the dragging of logs or brush thru the furrows. If the trenches can be filled with water, the addition of a small quantity of kerosene so as to form a thin scum on the surface will prove fatal. In extreme cases barriers of fence boards are erected and the tops smeared with tar or other sticky substances to stop the cutworms as they attempt to crawl over.

Clean cultural methods and rotation of crops are advisable, as also fall plowing and disking. Many cutworms can be destroyed where it is possible to overflow the fields. This is particularly applicable where irrigation is practiced.

MAKING MONEY IN BEANS

Time that American Farmers Awoke to Neglected Opportunities. Prices Up. $3 Beans an Early Possibility. Domestic Production Doesn't Meet National Demand. Heavy Importation Every Year.

Beans—Yes, Beans!

It is time that the American Farmers woke up to their importance as a profit-bringing special crop.

We used to hear in days gone by, the expression that a farmer's soil was so unproductive that it "wouldn't grow white beans."

In fact beans were more or less despised and passed over by farmers for other crops. But the farmer who has studied his market page of late has begun to sit up and take notice on the bean question.

Beans are steadily growing in popularity. More people are eating them every year. Food manufacturers are spending literally millions of dollars to educate people to the delicious, wholesome quality of baked beans, as a dish for everyone.

The question right now is whether the farmers of America are going to allow a big proportion of the handsome profit that beans are bringing to go to European importers—or are they going to rightfully claim them as their own.

The answer is: Grow more beans! Home beans are invariably preferred.

But every year the domestic production is far short of supplying the home demand. This domestic crop is around 8,000,000 bushels annually. It should be at least 10 to 12,000,000.

The prices have gone up amazingly in recent years. With hand picked beans bringing $2.60 a bushel, the prospect of $3.00 beans is exceedingly favorable, pretty fair profit from land that's "only good enough to grow white beans."

That means that your beans will be your most profitable special crop.

It is a mistake to believe that beans can only be grown profitably in the states which are now producing the greater portion of the bean crop—New York Michigan and California.

Hundreds of thousands of bushels of beans are grown in Maine, Wisconsin, Ohio, Pennsylvania, Iowa—in fact the successful production extends as far South as Florida.

There are also heavy bean-producing sections in Vermont, Illinois, Indiana and Minnseota.

In fact, beans can be grown and matured successfully in all Northern latitudes, and many southern states have demonstrated successful bean-growing soil.

Authorities tell us that any soil that will grow wheat and corn is adapted to the profitable production of beans.

Experiments have proved that beans yield better on old land than on new.

An inverted clover soil is ideal for beans.

A common rotation for large bean-growing sections is clover, beans, wheat.

Bean experts recommend deep plowing—not less than 6 inches—to prepare the soil for beans. As to planting time, it is a wise rule to wait till the soil is thoroly warmed; cold ground is death to the success of a good bean.

The planting time recommended by the most successful bean growers of New York and Michigan is between June 5th and June 20th. This time, of course, depends entirely upon geographical location and the condition of the ground.

We feel justified in advising the farmer who wants a sure, and top-price-bringing crop for 1912 to think seriously about beans. The consumption is increasing all the time—the prices going up!

NEW PLANTS FROM MONGOLIA

During the winter of 1910 and the spring of 1911, Frank N. Meyer, one of the explorers of the Department of Agriculture, made a careful search in the cases of Chinese Turkestan and in the vicinity of Chugutchak, Mongolia. Experimenters in the Northern States will probably be interested in the collection of winter wheats which Mr. Meyer secured in Chinese Turkestan; in three varieties of hull-less barley from which the Chinese Turkestan natives make bread; in alfalfa varieties from Khotan, Kashgar and Khanaka, one of which has the ability to grow in cool weather when other sorts have stopped growing. Another variety of alfalfa secured is one which is said to be much hardier from Turkestan alfalfa, tho giving only two cuttings, whereas the Turkestan alfalfa gives three, but while one-third of the latter may be winter-killed as experiments indicate, the new Mongolian variety remains uninjured. Mr. Meyer also found a hardy wild apple, which may prove valuable for breeding purposes; some hardy oleasters; four Mongolian wild roses with characters which may make them valuable for breeding purposes, and some winter radishes for midsummer planting.

A RARE CHANCE

I have a house at Ellendale, N. D. which I wish to sell or trade for land. It is within two blocks of the Normal-Industrial School; six rooms; two stories; two bed-rooms upstairs; large living and dining room; fireplace in dining room; good large basement; wired for electric light; heated by hot water with a steel boiler of the locomotive type; bath room and plumbing all complete; practically new; and beyond doubt the best location in the town. Southeast corner front; cement sidewalks on either side; lot 125 ft. front; buckthorn hedge; garden; driveway with trees; young fruit, etc. An ideal location for a man who wants to educate his children. Under ordinary conditions I would not want to take much less than $5000 for it, but I will sell it now at a bargain or trade it for a first-class quarter of land. Only A1 land considered.

Address FIRST NATIONAL BANK Ellendale

HOME DRESSMAKING





No. 4371—Ladies' Costume. Without lining Having one piece sleeves with turn-back cuffs, high waistline and attached four-piece skirt in regulation or shorter length Closing to the left of center-front Width around lower edge about two and one-quarter yards Sizes 32, 34, 36, 38, 40, 42 and 44 bust. Size 36 requires three-and three-quarters yards 54-inch material. Price, 15 cents.

No. 4374—Misses' Costume. Without lining. Having two-seam sleeves with turn-back cuffs, attached four-piece skirt. Width around lower edge of skirt about 2 yards. Sizes 14, 16 and 18 years. Size 16 requires 3 yards 44-inch material Price 15 cents.

No. 3975—Ladies' Waist. Sizes 32, 34, 36, 38 and 40 bust. Price, 15 cents.

No. 3995—Ladies' Skirt. Seven-gored foundation lengthened by a straight gathered flounce. and four-piece overskirt. Width around lower edge about 3 yards. Sizes 22, 24, 26 28 and 30 waist. 15 cents

Entire costume in medium size requires seven and one-half yards bordered material 30 inches deep and seven-eighths yard 18-inch tucking

No. 3713—Ladies' Collarless Waist. Sizes 32, 34, 36, 38 and 40 bust. Price, 15 cents.

No. 3933—Ladies' Skirt. Seven-gored foundation lengthened by straight side-plaited or gathered flounce. Width around lower edge of plaited flounce about 4 yards; gathered flounce about three and one-half yards. Sizes 22, 24, 26, 28 and 30 waist. Price, 15 cents.

Entire costume in medium size requires four and three-quarters yards 36-inch plain material and three and three-eighths yards 27-inch bordered material.

Home Department

COUNTRY LIFE IN THE LONG AGO

Last Article Written by the late Hon. Norman J. Colman, Our First Secretary of Agriculture

(From the Christian Endeavor World.)

The man or woman whose memory extends back a quarter of a century can recall many changes that have taken place in that period, changes which have affected the whole nation.

Many of these have been brought about by inventions; others have been the outgrowth of a largely increased population, which produced conditions that presented new problems; but in any case it is interesting to note the progress made, which it must be ownedhas been sufficiently swift so that any one awaking from a Rip Van Winkle sleep of twenty-five years would be bewildered at the strange sights that would greet him.

If this is true of a period of twenty-five years, it is true in far greater degree of seventy-five years; and except for the fact that each improvement or invention has been a preparation for the next one following the human mind would have been dazed and incapable of profiting by changes which have been wrought in that period.

This is more or less true in every line of our nation's greatness, it is but meet that it should have kept pace with the foremost in the march of industrial progress; and to this end the genius of many has been taxed, and thus the farmer has been helped in the fulfilment of God's command to subdue the earth and make it fruitful.

One Man Equals Many

And, tho it is yet true to some extent that he who would wrest a competence from old Mother Earth must do so literally by "the sweat of his face," yet he can call to his assistance aids of which his father and grandfather never dreamed, and which make him able to do the work of many men.

It has been my privilege to be in close touch with farm life for a long period, being now in my eighty-fifth year, and being born on a farm and taking part in the work which fell to the lot of the average boy in those early days. I must say that boys of the present, as well as their fathers, have cause to congratulate themselves because they came on the stage of life at a later period than I did.

In my boyhood the tools for farming were of the most primitive character. We had passed out of the crooked-stick era in preparing the soil for the seed; but ploughs were of iron, a poor implement when compared with the steel ploughs that came into use later.

When the sickle for cutting grain was superseded by the cradle, a long advance step was made. The scythe was used for mowing the hay crop, and was not as now a tool used only on rare occasions to cut a few weeds or grass in and out of the places.

Oxen were used to do the farm work, few farmers owning horses; and horses did not come into general use until the invention of machines which required animals that could move more quickly than oxen and that had the intelligence to respond promptly to their driver.

Harvesting the grain was tiresome and tedious, but threshing it was even more so, for that was done by tramping the dry sheaves with oxen or horses.

This wearisome job was left for the winter months; and many a night when a small boy I have ridden one of the horses until ten o'clock at night when threshing or tramping the grain, and I would fall asleep from sheer exhaustion, and my head would drop on the horse's neck.

This would be the signal for the close of the day's labor for me, and I would have a good long night's rest; but not so my father, who would be up early to remove the straw and grain so that the floor would be cleared ready for another day's work. When all was done, the grain was winnowed and ready for the mill.

The method of threshing noted made it necessary to have barns large enough to store the unthreshed grain; and usually these barns were built on side-hills, with a basement for housing stock, which opened on the lower side of the hill, while the second story, where the grain was stored, was easily reached from the upper or higher side of the hill by a driveway.

With the advent of threshing-machines out-door stacking of grain came into vogue, and, as by this time machines for harvesting had been invented, grain crops were larger, and barns to accommodate the increase would have required a greater outlay than the resources of most farmers would warrant. But barns then as now were an indication of the thrift of the farmer, for they were used to house the livestock and the forage and grain required for feed.

Farming in my boyhood was a simple matter, for it consisted for the most part in supplying the home needs. There was no anxious watching for market reports, as there was little surplus to market, and such as there was found local buyers.

The custom of exchanging farm products for work was common, and farmers found it convenient also to swap or trade different farm products with each other in the place of the one's selling his surplus, as is now done, in the local market and the other's supplying his needs from the same source.

In the winter clearing the land of trees and brush, and getting it into shape for a crop the following year, was a part of the regular programme.

Even in families where there were sons to help not many acres of heavy timber could be cleared in the course of the winter, for the work was more laborious than at present when the stump-pullers and dynamite or other explosives are at the service of the farmer. But with this hard work was mixed some pleasure such as log-rollings and brush-burnings and house-raisings, in which neighbors all helped.

As was said before, to provide the necessaries of life, food, clothing, and shelter, was the main object, even as it is now; but all these were produced very largely on the farm.

Houses and other buildings were built of logs or lumber sawed from timber growing on the farm. Rock and stones furnished other building-material, and lime was burned in small kilns instead of being a commercial product to be bought in the nearest town as at present.

Cattle furnished meat and hides, the latter sometimes tanned at home and made up by the village shoemaker. Sometimes one particularly obliging would carry his kit of tools and go from farm to farm making boots and shoes for a year's supply.

Sheep, too, did a double duty, that of adding to the food supply and furnishing wool for clothing. The wool was, in my earliest recollection, carded, spun, and woven at home; and the yarn or cloth was colored by vegetable dyes made of barks, roots, or berries, with some simple chemical like salt or alum to set the color..



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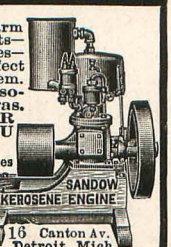
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Sandow $42.50
2½ H.P. Stationary Engine — Complete

Gives ample power for all farm uses. Only three moving parts—no cams, no gears, no valves—can't get out of order. Perfect governor—ideal cooling system. Uses kerosene (coal oil), gasoline, alcohol, distillate or gas. Sold on 15 days' trial. YOUR MONEY BACK IF YOU ARE NOT SATISFIED.

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There was no shoddy then, and the lasting qualities of homespun have never been reached by machine-made cloth; and I now have in my possession blankets made by my mother, which are more than sixty years old.

In most cases the clothing for the family was made by the same hands that had already carded, spun, and woven; and some knowledge of the art of dressmaking and tailoring was then possessed by nearly every woman; and, the work of sewing by hand being so laborious, there was more attention paid to mending than at present, when a worn place in a garment is often the signal for buying a new one; and there was little change in fashion from year to year, so garments were worn out without altering or making over.

Flax was grown, and it too was prepared for the loom and woven at home, and was made up into bed and table linen, underclothing, and towels, while the coarser material was used for bags and other domestic purposes.

Cotton was used to some extent as a mixture with flax or wool for different purposes, and younger people than I can remember linsey-woolsey, which was a fabric made of wool and cotton, much used as material for women's and children's clothing.

All meat was cured at home, and the cellar and the smoke-house were well supplied with dried and corned beef and barrels of pickled pork, as well as hams and bacon, tho putting the pork in brine was the commonest way of curing.

Fresh meat in plenty came from an occasional hog, sheep, or beef slaughtered and divided with the neighbors, who in turn returned the compliment; and the poultry-yard furnished fowl; the woods, game birds and animals; and the streams, fish.

No Insect Pests

Wild fruits such as crab-apples, plums, grapes, cherries, and berries of different kinds were plentiful; and these were later superseded by cultivated sorts, which grew luxuriantly and yielded abundantly, the fungous diseases and insect pests which the present-day orchardist must wage war against being then unknown.

No doubt this was due in some degree to the vigorous growth induced by the virgin soil, and to the numberless birds which preyed on insect life; and, too, there had then been no importations of harmful insects such as later came with plants and fruits from foreign countries.

Country life was a simple succession of every-day duties belonging to the season, interspersed with trips to town, visits to the neighbors, and meetings at the schoolhouse, where debating-societies were held and questions of local and general interest discussed.

Farmers' children did not enjoy very great educational advantages; only those above their fellows in mental endowment, ambition to excel, and physical endurance went beyond the elementary studies taught in the district schools, tho some of the teachers were earnest, conscientious men, who tried faithfully, with the means at command, to train the minds of their pupils.

Boarding around was the order of that time, the teacher receiving a stipulated wage in addition to his board, which each patron furnished in turn; and the writer has taught school for the meagre sum of four dollars a week, and some teachers received even less.

But in spite of the small educational advantages enjoyed there were intelligent, thinking men and women among the farming population of those days, who discovered the best methods of accomplishing the work they had to do, and served in a way as teachers in their respective communities. They were not always able to explain the philosophy by which they arrived at conclusions, but their practices were correct, as modern science has proved.

Men of this class were the model farmers of the time. Such a one was my father, who took the premium offered by a local association for having the best-kept farm; and no doubt his love of his work and his success in it was what helped to inspire me with the desire to teach others how to become good farmers, and was responsible for my career as editor and publisher of an agricultural paper.

The crops of that time were few as to variety, wheat, oats, corn, grass, and clover being those upon which the main dependence was placed. Improved varieties of all these were later introduced, as has been the case with fruits and vegetables as well.

Domestic animals, too, have been greatly improved since that period, and instead of the nondescript varieties then in existence we have now well-defined breeds, each with well-known characteristics and suited to a special purpose.

Now we have our draft-horses and our drivers and saddlers, our beef cattle and dairy cows and sheep, different breeds of hogs and poultry, equally distinct as to type. These have each found admirers, and men have become breeders of such animals as they most fancied, leaving the ranks of the general farmers, to whom our forefathers belonged, and specializing, which is what has brought both wealth and distinction to many farmers of the present day.

To men who gave their lives to such work much praise is due, because it is they and the inventors who have conferred untold benefits on the agricultural world.

Who would go back to the old ways of farming such as I have named? What housewife would be satisfied to make tallow candles for lighting purposes, leach ashes to make soap, and dispense with the sewing-machine, washer, wringer, and many other labor-savers in use for several decades, not to say anything of the vacuum cleaner, the fireless cooker, and many smaller tho quite as important devices which are now in common use?

The difference is quite as marked on the farm as in the house.

The farmer of the present who can afford it has improved machinery of every kind; he has for special purposes machines which are so accurate as to work as if moved by human intelligence. He has for motive power the kerosene or gasoline engine or electric motor, and for conveyance the automobile, while his home compares in comfort and conveniences with the city home. He has water in the house, the telephone, and daily delivery of his mail; and he has access to good markets and cheap transportation for himself and his family as well as for his produce.

He has the advantage of numerous agricultural papers, whose teachings suit local as well as general conditions. He has at his command, not only the faculty of his State agricultural college, but of the Department of Agriculture at Washington to advise him on any question relating to farming. His problems are worked out for him by the State experiment stations so that he may be sure of success from the start.

Vast sums are spent each year in searching the globe for valuable plants and fruits, and numbers of these are among the profitable crops of the present-day farmer.

Scientists are ever studying plant and animal diseases with a view to stopping ravages from this source and thus preventing loss to the farmer; in fine, let the farmer complain, and immediately his cry is heard, and the machinery of a well-organized department of our government is set in motion to aid him.

All that I have named, and more, is what makes farm-life today the most enjoyable in the world, and makes farming a business to be preferred to most lines of industrial activity, and places the thinking, educated farmer on the same plane as the man belonging to other professions.

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A SHORT AND EASY ROAD TO WEALTH

Would you like to sell a 15 cent product for $4.50? Do you want to make money easily and quickly? Then take some ordinary food product (like cottage cheese) and give it some imposing name (like Sanatogen) and sell it for thirty times what it is worth. The public will buy it if it is advertised under some mysterious name, with profound scientific claims as to its value. This is the moral which "The Journal of the American Medical Association" draws from its investigation of Sanatogen. This product, which has been advertised widely in the newspapers and magazines of the United States and Europe, has practically the same chemical composition as cottage cheese, being composed of from 83 to 95 per cent of casein. According to its promoters and the people who furnish the testimonials, it is "a re-creator of lost health," "a specific nerve tonic," "a scientific compound," containing "over 700 per cent more tissue building, life sustaining nourishment than wheat flour." According to the chemists of the American Medical Association it is nine-tenths casein or cheese (and very expensive casein at that) with the addition of about 5 per cent of glycerophosphates. A table compiled from Professor Atwater's calculation shows its relative value as a food and its cost as compared to other food articles.

Kind of Food Material	price per lb.	Cost of 1,000 calories energy	calories energy for $1
Sanatogen	$4.54	$3.01	332
Celery	.50	.77	1,300
Eggs ($.36 prdz	.24	.39	2,600
Beef, round	.14	.16	6,300
Milk 7cts. pr. qt.	.035	.11	8,850
Pork, loin roast	.12	.10	10,350
Butter	.30	.09	11,250
Mackerel, salt dr	.10	.09	11,350
Cheese	.16	.08	11,850
Beef, stew meat	.05	.07	15,300
Wheat bread	.06	.05	20,000
Rice	.08	.05	20,250
Sugar	.06	.03	29,200
Pork, fat salt	.12	.03	29,500
Potatoes	.01	.03	29,500
Beans, White	.05	.03	30,400
Oatmeal	.04	.02	45,000
Cornmeal	.025	.02	65,400
Wheat flour	.025	.02	65,400

THE SCALE ON THE FARM

The scale is just as important on the farm as in the grocery store. How would the grocer succeed who in selling sugar should put in a few scoopfuls and say, "I guess that's about right," or in selling nails should drop a few handfuls in the bag and say, "I guess that's about it." The farmer who guesses at how much he is feeding his cows or hogs, who guesses at how much milk or gains he is getting is doing just the same kind of business as the merchant who should guess instead of weigh.

The cows and the pigs, etc., are the farmer's customers. They take his feed and roughage. Now the farmer needs to know what he gets in return in the way of pounds of milk, butterfat, pork, etc. No successful business was ever built on guessing—farming is no exception.

This brings a case to mind. A boy who was learning how to test milk at school, tested his father's herd. He also weighed the milk from each cow morning and evening and kept a record of it. He also kept a record of the feed given the cows. After awhile the fourteen year old informed his pa that Brindle didn't give enough butterfat to pay for her feed. Pa looked at him kind of funny. The idea of his boy telling him that. Yet he did not attempt to contradict the boy. He knew the boy had been weighing and figuring. The boy also informed him that Spot was paying a splendid profit and Rosy was not paying for her feed and so on. What was to be done? The boy's information was taken and acted on. At the end of the year the herd had been reduced from 21 to 14 cows by selling the poorest and buying some more good ones. The 14 gave more profit than the 21. That was what a fourteen year old boy could do by weighing and keeping accounts. The time the boy spent in doing that weighing and figuring, only a few minutes a day, brought more profit than the day after day of work put in by this father. And these few minutes of work a day made it possible for that farmer to increase his returns year after year.

If one is feeding pigs, the only way to know what is going on is to weigh the pigs from time to time and to weigh the feed. The horses should be weighed that their condition may be the more accurately known. The load of grain or hay that goes to town should be weighed. But there is no need of ennumerating further.

The scale is necessary on the farm—just as necessary as in the grocery store or the coal yard.

URGES INSPECTION OF HOG FLESH

In a special message to Congress President Taft urges an appropriation of $1,000,000 for microscopic inspection of the flesh of hogs that is to be converted into meat food products which ordinarily are eaten without cooking.

"Several deaths," says the President, have resulted from eating such products which contained trichinae. The Swiss Minister is now seeking reparation on ac-


ANTON MICKELSON, President

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I guarantee it **absolutely.** I guarantee that a 75c box of Mickelson's Kill-Em-Quick will kill every gopher in an 80 acre field. A $1.25 box of Kill-Em-Quick will kill 4,000 gophers and save you $400 at least because there are 4,000 gophers on an average 160 acre field and each gopher costs you 10c in **grain you don't get.** Don't put up with the destruction gophers mean—don't stand for the losses they make! Spend 75c or $1.25 **now** for a box of

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and watch every gopher on your farm die or disappear. Kill-Em-Quick draws them **like a magnet** because its odor and taste are **attractive** to them. They leave grain, shoots and juicy joints for Kill-Em-Quick. They rave over it. And one single poisoned grain kills them before they can wink an eye. Kill-Em-Quick has been tried, tested and proved the quickest, cheapest and surest way to kill gophers, squirrels, field mice, sage rats and prairie dogs.

Use It Right NOW

Go to your druggist and purchase a box of Kill-Em-Quick. Don't take anything else or you will be disappointed. If unable to obtain it from druggist I will supply you direct on receipt of price and I'll pay express charges. If my gopher poison doesn't live up to every statement I have made, I personally will refund your money promptly, no argument or red tape—just **money.** Protect your crops and profits this year by spending 75c or $1.25 now. Isn't it worth while?

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Kill-Em-Quick is easy to use. Full directions are on every box. But if you want **special advice**—if you have peculiar conditions to contend with, write me at once. I have made a study of gophers, squirrels, prairie dogs, field mice, pocket gophers, rats and other field pests and will gladly give you the benefit of my experience free. Anyway write me a postal now for my book that tells how to save $100 on every 40 acres.

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count of the deaths and serious illness of several citizens of Switzerland. These deaths and serious illnesses are claimed to have been caused by eating American meat which contained trichinae. The Department of Agriculture has issued warning circulars and caused notices to be printed in the newspapers of the country concerning the danger of eating such uncooked products. The microscopic inspection of the flesh of all hogs would require an increase of $4,000,000 in the appropriation. This is not deemed necessary. There is ample authority in the meat-inspection act to make the microscopic inspection, but no money has ever been provided. Therefore I urge upon the Congress the appropriation of $1,000,000 for this purpose, on the ground that the emergency demands such action."

Trichinosis is a disease occurring in man and other animals as a result of eating flesh containing the living larvae of a parasite, commonly known as trichinae. The disease is often mistaken for typhoid fever on account of the similarity of the symptoms, and the muscular pains are sometimes taken for rheumatism. If the disease is recognized early, the patient may be treated with purgatives and vermifuges to expel the worms from the intestines.

The frequency of the disease in man depends upon the frequency of infection in hogs used for food, and upon the extent to which insufficiently cooked or raw, imperfectly cured pork is eaten. More than a thousand cases have been placed on record or are definitely known to have occurred in this country, and a large percentage of those patients whose nationality has been ascertained were Germans. In certain portions of the German Empire the custom of eating raw pork is a common one, and out of 6,329 cases which occurred in that country from 1881 to 1898, 5,456 cases occurred in the States where raw pork is an established article of diet.

According to officials of the Bureau of Animal Industry, the frequency of trichinosis in hogs in this country, averages from 1 to 2 per cent. In some localities the percentage is much higher than this,

Wonderful Kerosene Engine Saves Money Every Minute!

A Startling Success—A Success from the Start

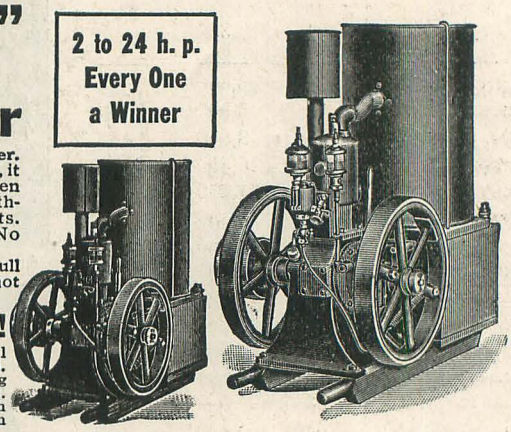
This amazingly light, powerful and durable engine runs on kerosene—**just ordinary lamp oil!** It is the only engine in the world that does it **successfully.** Kerosene costs about **half** as much as gasoline and the same quantity yields **one-third more power.**

Gasoline prices are rising. Coal oil is getting cheaper. Thus the "Detroit" solves one of the greatest problems that confront the users of engines. The "Detroit" saves money every minute. It does the work of engines weighing **four times as much.** It runs equally well on gasoline, alcohol, naphtha, benzine, turpentine, distillate, gas, etc., etc. It is the lightest engine of its horse power in the world—**and the very best—bar none.** You can get one of these wonderful engines, any size desired, on 15 Days' Free Trial, direct from our great engine works. It is all complete as shipped—ready to run when uncrated.

The Amazing "DETROIT"

Gives World's Cheapest Power

2 to 24 h. p. Every One a Winner



The "Detroit" does everything that any engine will do—**and does it better and cheaper.** It is mounted on skids, for easy handling. It pumps, it churns, it sprays, it saws, it threshes, it grinds feed and does innumerable other things. It will even light your house and barn, when attached to a dynamo. This is the supreme test of smooth-running required of any engine. Only three moving parts. Starts without cranking. Reverses like a steam engine. No cams, sprockets, gears, valves, etc., etc.

We run every engine at the factory, and ship it in full running order. Our **guarantee** means money back if not found entirely satisfactory.

Thousands Already Sold—Orders Pouring In!

When we startled the country by the announcement that a coal oil engine had at last been perfected, a whirlwind of sales resulted. Thousands of "Detroits" are now in use, and our manufacturing facilities are taxed to the utmost to supply them as fast as needed. They are winning a world-wide reputation for economy and high efficiency. No other engine, at any price, can compete with them successfully.

GREAT SPECIAL OFFER

To the first purchaser in each locality we offer a special introductory price on the Detroit Kerosene Engine. This offer will not hold good indefinitely. Only one engine sold in a neighborhood at this price. We make this offer because the first engine creates a big sensation and brings additional orders from that locality. This is a grand opportunity. Don't miss it. See coupon.

(57)

Try One 15 Days—Fire It Back if Not O. K.

We Will Refund Every Cent You Have Paid Us for the Engine

We are shipping out our engines as fast as applications are received, **on 15 days' free trial.** Your choice of sizes—2 to 24 horse power, inclusive. We assume all the risk. If for any reason you are not satisfied with the engine, simply **fire it back.** We will hand your money back that you have paid us for the engine without any "back talk." It is easy to do business with us. Our responsibility is unquestioned.

Save $40 to $200 on an Engine

We sell the entire output of our great engine works, covering eight acres, direct to the actual users, at factory prices. A clean saving of $40 to $200 cash, depending on size of engine ordered. You cannot get this engine anywhere else in the world. Read our Great Special Introductory Offer.

SEND COUPON OR POSTAL

Investigate this amazing engine immediately. Get the Detroit Engine Catalog and see how we have entirely **revolutionized** the design and construction of engines. The low cost of the engine itself, the economy in fuel, the simplicity and power of the "DETROIT" will surprise you. Sign and mail the Coupon which brings Free Catalog and Special Proposition.

DETROIT ENGINE WORKS, 385 BELLEVUE AVENUE DETROIT, MICH.

COUPON Free Book and Introductory Offer

DETROIT ENGINE WORKS
385 Bellevue Ave., DETROIT, MICH.

Dear Sirs: Please send Free Book and Special Introductory Offer on the Amazing "DETROIT."

Name _____

Town _____

R. F. D. _____ State _____

in others it is less, and there is more or less variation from year to year.

The danger of infection of man with trichinosis may be entirely avoided if pork is not eaten until after it has been thoroly cooked or thoroly cured. Trichinous meat thus treated is perfectly fit for food, say officials of the Bureau, and just as wholesome as non-infested meat, except in rare instances where the infestation is severe.

Even if Congress should provide the $1,000,000 for microscopic inspection of the meat of hogs, the consumer should not feel himself secure against an attack of trichinosis, but the same degree of caution with regard to the use of uncooked pork should be exercised as is done at the present time. The experience of Germany where a very elaborate system of inspection is in operation, with more than 6,000 cases of trichinosis in 18 years, demonstrates the fact that microscopic inspection is not successful as a means of barring trichinous pork from market. In all cases, whether pork has been inspected or not, it should be thoroly cooked or thoroly cured before it is used for food.

SACCHARIN AGAIN

The Journal of the American Medical Association says, in a recent editorial, that the attitude of the Department of Agriculture on any subject connected with public health is: When in doubt, let the public take the risk. For years those who are competent to speak on the subject have declared that the use of saccharin in foodstuffs is deleterious to health, but the Department of Agriculture permitted its use in unlimited quanitties with the understanding that the referee board was to investigate the question and report on it. In the course of time the report was sent in—and it was adverse to the use of saccharin! On the strength of the board's findings, the department declared that after July 1, 1911, foods containing saccharin would be regarded as adulterated within the meaning of the Food and Drugs Act. Naturally enough, those manufacturers that have grown rich in substituting a cheap drug—saccharin for an expensive but wholesome foodstuff—sugar—at once brought all the pressure possible to bear, to have the decision of the department either rescinded or modified. As is usually the case, when the interests of the manufacturers clash with the interests of the public health, public health got the worst of it and the users of saccharin were given an additional six months during which it would still be legal to add this chemical to foodstuffs. As January 1, 1912, the end of the period of probation, drew near, a little more pressure was applied to those officials who are supposed to stand between the public and the food sophisticators. Again the officials yielded and another extension of time was given to February 1, 1912. The newspapers for January 30, 1912, contain the statement that still another extension has been given, to March 1, 1912. How much longer this will go on can be best judged by those who are familiar with the methods of official Washington. The spectacle is not a pretty one and does not tend to increase public confidence in the Department of Agriculture.

WARNING—ADULTERATED LINSEED OIL

With the high price of linseed oil, two firms, known to be in the habit of selling aulterated linseed oil, have begun to do business in North Dakota; one, in and about Cass County, the other in the southern part of the state.

Dealers are, therefore, warned against the handling of adulterated linseed oil, in violation of the State Law.

If further tests show that dealers are handling an adulterated oil, prosecutions will follow. We suggest that dealers submit samples for analysis, stating just how the barrel or container is labeled, when purchased and from whom. About one pint is required for an analysis.

Turpentine substitutes are now coming on the markets labeled and sold as turpentine. This is in direct violation of the law, and renders the parties handling the same liable to prosecution. The addition of mineral oils to linseed oil or to turpentine is a fraudulent practice not intended to benefit the consumer.

(Signed) E. F. LADD,
Commissioner.

MARRIED COUPLES ON A FARM

The greatest source of satisfactory farm help in the west has been in the married couples. The employment of these solves to some extent both the domestic and farm help problem, and we wish that many more couples were available. There is an objection, however, to this plan of hiring married couples. It is very difficult to secure a man and his wife who are both competent. In many cases the one is a good servant and the other a poor one. By discharging the poor one the farmer is forced to lose them both and is consequently greatly inconvenienced. Where any farmer is fortunate enough to have a satisfactory man and his wife as help on the farm, he should be willing to build a separate house for them, give them a milch cow, a small plot for a garden and other conveniences to make a home for them, thus securing probably the most permenent kind of help to be obtained.—Northwest Farmer, Winnipeg, Manitoba.

MAKE ALARM CLOCK HELPFUL

Make your alarm clock help you by reminding you when to attend to any thing you may have baking or boiling. You may even work out in the garden and by having the alarm clock set in an open window have no fear that your dinner will burn or boil dry from your forgetting it.

BAKER'S
Breakfast Cocoa
Is of Unequaled Quality



Registered U. S. Pat. Off.

For delicious natural flavor, delicate aroma, absolute purity and food value, the most important requisites of a good cocoa, it is the standard.

Trade-Mark On Every Package

53 Highest Awards in Europe and America

WALTER BAKER & CO. LTD.
Dorchester, Mass. Established 1780

LEARN WIRELESS & R. R. TELEGRAPHY!
Shortage of fully 10,000 operators on account of 8-hour law and extensive "wireless" developments. We operate under direct supervision of Telegraph Officials and positively place all students, when qualified. Write for catalogue.
NATIONAL TELEGRAPH INSTITUTE
Cincinnati, Philadelphia, Memphis, Davenport, Ia., Columbia, S. C., Portland, Ore.



EASY TO EARN—You choice of 150 premiums for selling our **Keystone Easy-to-Thread Best Quality GOLD EYE NEEDLES** at 5c. a package. With every two packages we give **FREE Silver Aluminum Thimble.** Send name and address. We send, postpaid, 24 needle packages and 12 thimbles with **LARGE PREMIUM BOOK.** When sold send us $1.20 and receive premium entitled to, selected from premium list. Extra present **FREE** if ordered today. Address
Keystone Novelty Co., Box 715 Greenville, Pa.

HONEY Well ripened clover Honey for Sale, guaranteed absolutely pure and of the finest quality. One 30-lb. can 11½c per lb.; 2 or more cans 11c; 12-lb. cans, in full cases of 72 lbs., 11½c per lb. Send for price ist. Address
M. V. FACEY, Preston, Fillmore Co., Minn

North Dakota Farmer: Fifty Cents year; 3 years, $1.00. Agents wanted.

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ELLENDALE BRANCH
ELLENDALE, NORTH DAKOTA

Seasonable Receipts

To Keep the Hands Soft and White

Ask your druggist to put a few drops of carbolic acid in ten cents worth of glycerine. Add to this the juices of one large lemon. Rub a little thoroly into the hands after dishwashing or any such work.

To Fill Cracks in Floor before Painting

Mix wheat flour and linseed oil to the thickness of paste and fill the cracks level with flour. When dry paint or stain as preferred.

Spring Mince Pies

One and one-half cups chopped raisins, one cup sugar, one cup molasses, one cup warm water, one-half cup vinegar, two well beaten eggs, five large crackers rolled fine, one teaspoon each cinnamon and cloves. This makes two large or three small pies.

Crullers

Six tablespoons melted butter, six tablespoons sugar, three tablespoons sweet milk, three eggs, salt, but no baking powder. Flavor with vanilla. Roll thin and fry in hot lard after cutting into fancy shapes.

Mother's Ginger Snaps

Three eggs, 1 cup brown sugar, 1 cup butter and lard, 3 teaspoons ginger, 1 teaspoon cinnamon, 1 teaspoon soda, 2 cups molasses and flour to roll thin.

White Cookies

Two sugar, 1 cup butter, one-half cup sour cream, 1 cup sour milk, 1 teaspoon soda and 1 teaspoon nutmeg. Flour to roll.

German Potato Salad

Boil 1 dozen medium-sized potatoes without peeling. When cool, peel and slice. Add 4 onions sliced very thin and 6 slices of bacon which has been cut into dice and fried a nice brown. Heat one-half cup of vinegar, add salt and pepper, then pour it over the potato and mix all carefully.

Quick Plain Muffins

One egg, one-third cup butter and lard, 1 pint sweet milk, 1 tablespoon sugar, 3 level teaspoons baking powder and flour to make a stiff batter. Bake in quick oven.

Pieplant Shortcake

Two cups flour, 2 teaspoons baking powder, 2 tablespoons butter and lard, and 1 teaspoon salt rubbed into the flour. Mix in enough flour to make a soft dough. Roll in two layers and put a layer of chopped pieplant between the layers. Bake and serve with cream and sugar. You will be surprised to find what a good substitute this is for the much more expensive strawberry shortcake.

Baked Fish

Clean and dry the fish, rub with salt and cut gashes into which put thin slices of salt pork. Dust with flour and stuff with the following dressing: a cup fine bread or cracker crumbs, a little chopped onion, parsley and pickle if liked, salt and pepper. Moisten all with a half a cup of melted butter. Put the fish in a hot oven and baste occasionally with melted butter.

The addition of a cupful of mashed potato to any receipt for meat loaf improves it very much. It helps to bind the loaf and at the same time makes it more moist.

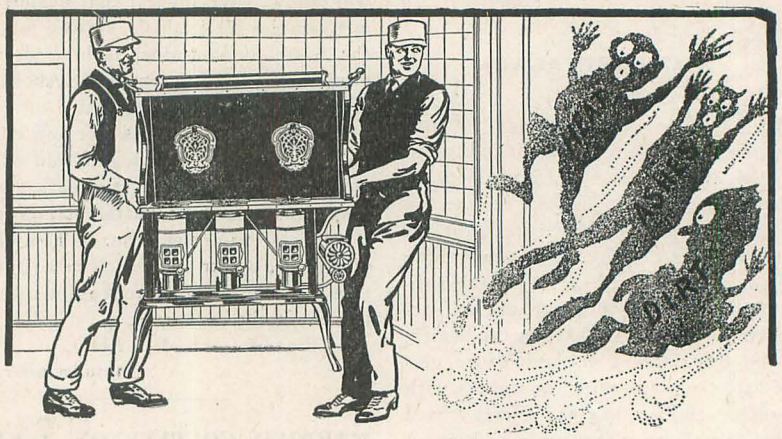
LIKE MOTHER USED TO MAKE

I can sing and I can play
I can sew the livelong day,
And I always thought that I could first-rate bake.
Be it bread or cake or pie—
I can hear his soft reply—
"It is good, but not like mother used to make."

Now at first it broke my heart,
For to cook is quite an art,
Which I thought I had accomplished—a mistake!
But I don't grieve any more—
Laugh instead of getting "sore"
When I hear "it's not like mother used to make."

For I think I've won at last!—
In the future—not the past,
For I have six boys who sometime wives will take.
Be it bread or cake or pie
I can hear the soft reply,
"It is good, but not like mother used to make."

—McCall's Magazine.



When a New Perfection Comes in at the Door Heat and Dirt Fly Out at the Window.

What would it mean to you to have heat and dirt banished from your kitchen this summer—to be free from the blazing range, free from ashes and soot?

New Perfection
WICK BLUE FLAME
Oil Cook-stove

With the New Perfection Oven, the New Perfection Stove is the most complete cooking device on the market. It is just as quick and handy, too, for washing and ironing.

This Stove saves Time
It saves Labor
It saves Fuel
It saves—YOU

Made with 1, 2 and 3 burners, with long, enameled, turquoise-blue chimneys. Handsomely finished throughout. The 2- and 3-burner stoves can be had with or without a cabinet top, which is fitted with drop shelves, towel racks, etc.

All dealers carry the New Perfection Stove. Free Cook-Book with every stove. Cook-Book also given to anyone sending 5 cents to cover mailing cost.

STANDARD OIL COMPANY
(An Indiana Corporation)

LIBRARY
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ELLENDALE BRANCH
ELLENDALE, NORTH DAKOTA



Precious Metals Ground in Linseed Oil

THAT'S what Horse Shoe Brand House Paint is: every gallon of it is strictly pure lead and zinc ground in strictly pure linseed oil.

It's a fact; and when your house puts on a coat of Mound City House Paint it fronts the world, so to speak, in cream, or gray, or tan, or white armor plate.

Strictly pure zinc makes up what lead lacks: strengthens where lead is weak — is harder — whiter — more clear — and beautiful.

White lead is just what its name implies, metal — *soft* metal, of great covering power.

Strictly pure linseed oil is the liquid that binds these natural partners together.

Zinc takes more oil to the pound than lead, and, because "oil is the life of paint" lead plus zinc makes the best paint known.

Baser metals are sometimes used in paints, but their value is unproved — and unless you are willing to lend your two or three-thousand-dollar house as a subject for experiment — better keep on the safe side and buy Mound City Horse Shoe Brand House Paint, which is made of really precious metals, in right proportions, and rightly ground in pure aged linseed oil.

Mound City Paint & Color Co.

Good Makers of Good Paints

ST. LOUIS, U. S. A.

NORRIS B. GREGG, Pres. WM. H. GREGG, JR., Vice-Pres. E. H. DYER, Sec

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ELLENDALE BRANCH
ELLENDALE, NORTH DAKOTA

My Greatest Success

By R. E. Olds, Designer

Trainloads of Reo the Fifth

In the past 25 years, a dozen models of mine have become the season's sensation.

Again and again I have seen the factory swamped, and men paying a bonus to get my latest creation.

But Reo the Fifth has broken all records. I never saw a demand which compares with this.

Five cities at this writing have **trainload** orders with us—**orders for forty carloads each**—to go in a single shipment.

But the demand is just beginning. Very few men have yet discovered this car.

Soon there will be 10,000 cars in the hands of 10,000 owners. Ten thousand men will be telling others how Reo the Fifth performs.

Then will develop the real demand for this final car of mine.

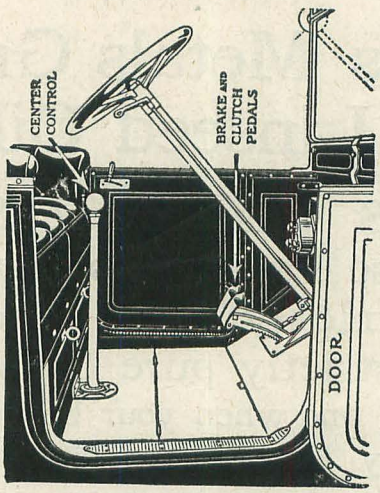
Not a Passing Sensation

Other season sensations have come and gone. New cars and better came out to displace them.

Those days are over now. Reo the Fifth comes close to the limit in motor car engineering. It embodies the final results of my 25 years of experience. In every detail it marks the best I know.

There is no probability that we shall ever see a materially better car. The years can bring only minor changes.

Center Control—No Side Levers



Then here, for the first time, we get rid of all side levers. All the gear shifting is done with this center cane handle—done by the right hand. It is done by moving this lever less than three inches in each of four directions.

Both brakes are operated by foot pedals, one of which also operates the clutch. So the entrance in front, on either side, is clear.

This arrangement permits of the left side drive. The driver sits, as he should sit, close to the passing cars—on the up side of the road. Heretofore this was possible in electric cars only.

Thus we have solved the last important problems in designing.

It Deserves It

This car deserves popularity. That is my satisfaction.

The men who buy it get the utmost of which I am capable. There will be no regrets—none to say I misled him. And none will ever see a car which gives more for the money.

The steel in this car is all analyzed. Every vital part is put to radical test.

Parts are ground over and over, to get utter exactness. Inspection is carried to extremes.

There are big margins of safety. The bearings are Timken and Hyatt—roller bearings, in place of the usual ball bearings.

The tonneau is roomy, the wheels are large, the car is over-tired. The carburetor is doubly heated.

The body is finished in 17 coats. The upholstering is deep, the lamps are enameled. Even the engine is nickel trimmed.

Every part of the car shows the final touch—the avoidance of petty economies. I am proud of it. Not an iota has been omitted which could add to the worth of this car.

Price Still $1,055

The price of this car remains at $1,055, tho subject to instant advance. This price is too low for a car like this. It leaves no adequate margin.

But we shall continue this price, in all probability, until materials on hand are exhausted.

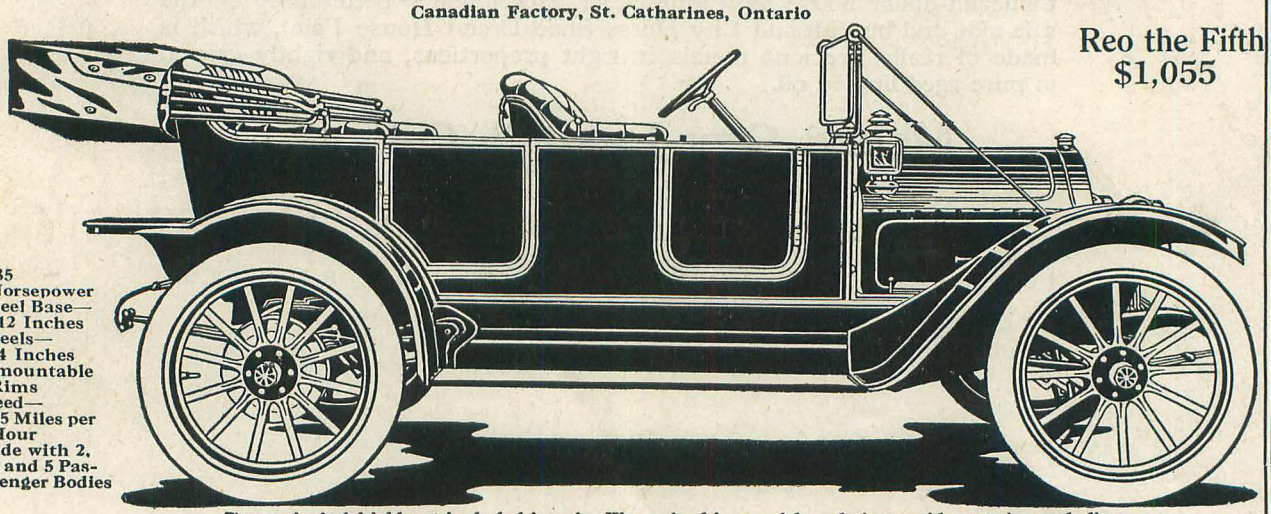
1,000 Dealers

Reo the Fifth is shown by dealers in a thousand towns. We will direct you to the nearest when you send for our catalog. Please write for it now. It shows the various bodies. Address

R. M. Owen & Co., General Sales Agents for Reo Motor Car Co., Lansing, Mich.

Canadian Factory, St. Catharines, Ontario

Reo the Fifth
$1,055



30-35 Horsepower
Wheel Base—112 Inches
Wheels—34 Inches Demountable Rims
Speed—45 Miles per Hour
Made with 2, 4 and 5 Passenger Bodies

Top and windshield not included in price. We equip this car with mohair top, side curtains and slip-cover, windshield, gas tank and speedometer—all for $100 extra. Self-Starter, if wanted $20 extra